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A Synopsis of *Leucheria* (Asteraceae, Nassauvieae), with Notes on the Morphology

*Liliana Katinas,
María José Apodaca, and
Jorge V. Crisci*

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WASHINGTON, D.C.
2022

Recommended citation:

Katinas, Liliana, María José Apodaca, and Jorge V. Crisci. 2022. A Synopsis of *Leucheria* (Asteraceae, Nassauvieae), with Notes on the Morphology. *Smithsonian Contributions to Botany*, No. 115. Washington, D.C.: Smithsonian Institution Scholarly Press.

Cover images, from left: *Leucheria diemii*, *L. purpurea*, and *L. tomentosa* (photographs by Mauricio Bonifacino and Andrés Moreira Muñoz).

Published by SMITHSONIAN INSTITUTION SCHOLARLY PRESS
P.O. Box 37012, MRC 957
Washington, D.C. 20013-7012
<https://scholarlypress.si.edu>

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Library of Congress Control Number: 2022934386

ISSN: 1938-2812 (online); 0081-024X (print)

Publication date (online): 16 May 2022

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In memory of Vicki Ann Funk

ABSTRACT

Katinas, Liliana, María José Apodaca, and Jorge V. Crisci. A Synopsis of *Leucheria* (Asteraceae, Nassauvieae), with Notes on the Morphology. *Smithsonian Contributions to Botany*, number 115, x + 102 pages, 40 figures, 2 tables, 1 appendix, index, 2022. — A synopsis of *Leucheria* Lag. (Asteraceae, Nassauvieae) is presented that adds morphological information about the species and encompasses the taxonomic novelties of the genus (new combinations, new varieties, and new species) established after the last revisionary work in 1976. Because previous work showed that the position of the phyllaries of the involucre, interpreted as paleae, and the life cycle are not good taxonomic characters, a new approach is proposed here for the species distinction. The morphological analysis shows that all but one species (*L. floribunda*) have plumose pappi with cilia of different lengths, and the surface of the fruits is tuberculate in all species. The type and amount of fruit pubescence are useful in the distinction of some species. As a result of the analysis, the number of species of *Leucheria* was reduced from 49 to 29. Twenty-seven new lectotypifications (*Chabraea barrasiana* J. Rémy, *Chabraea gayana* J. Rémy, *Chabraea multifida* DC., *Chabraea salina* J. Rémy, *Chabraea salinasi* Phil. var. *bipinnatifida* Phil., *Chabraea suaveolens* (d'Urv.) DC. var. *integrifolia* Sch. Bip., *Chabraea suaveolens* (d'Urv.) DC. var. *pinnatifida* Sch. Bip., *Chabraea viscida* Bertero ex Colla, *Lasiorrhiza lithospermifolia* Poepp. ex Less., *Leuceria conyzoides* D. Don, *Leuceria echinoides* D. Don, *Leuceria fuegina* Phil., *Leuceria garciana* J. Rémy, *Leuceria gracilis* Albov, *Leuceria hieracioides* D. Don, *Leuceria ibari* Phil. var. *glandulosa* Speg., *Leuceria ibari* Phil. var. *sessiliflora* Speg., *Leuceria lanata* Albov fo. *virescens* Albov, *Leuceria lanata* Albov, *Leuceria candidissima* D. Don, *Leuceria coerulescens* J. Rémy, *Leuceria congesta* D. Don, *Leuceria floribunda* DC., *Leuceria rosea* Poepp. ex Less., *Leuceria runcinata* D. Don, *Leuceria scrobiculata* D. Don, *Perdicium suaveolens* d'Urv.), five neotypes (*Leuceria acanthoides* D. Don, *Leuceria cinerea* D. Don, *Leuceria laciniata* Hook. & Arn., *Leuceria ibari* Phil. var. *glabrata* Speg., *Leuceria millefolium* Dusén & Skottsb.), seven epitypes (*Leuceria divaricata* D. Don, *Leuceria hoffmannii* Dusén, *Leuceria lanigera* O. Hoffm. ex Dusén, *Leuceria meyeniana* Walp., *Leuceria pulchella* D. Don, *Leuceria glandulosa* D. Don, *Trixis senecioides* Hook.), 36 new synonyms, and some changes in the species distributions are proposed. A key to the species of *Leucheria*, brief species descriptions, detailed illustrations, and distribution maps for each species are presented.

RESUMEN

Se presenta una sinopsis de *Leucheria* Lag. (Asteraceae, Nassauvieae) junto con información morfológica de las especies y las novedades taxonómicas sobre el género (nuevas combinaciones, nuevas variedades, nuevas especies) que se establecieron después del último trabajo de revisión realizado en 1976. Trabajos previos demostraron que la posición de las filarias del involucre, interpretadas como páleas, y el ciclo de vida no son buenos caracteres taxonómicos, por lo que se propone aquí un nuevo enfoque para diferenciar a las especies. El análisis morfológico muestra que casi todas las especies (excepto *L. floribunda*) tienen el papus plumoso, con las cilias de diferente longitud, y que todas las especies tienen la superficie del fruto tuberculada. El tipo y la cantidad de pubescencia de los frutos son útiles en la distinción de algunas especies. Como resultado de este trabajo, el número de especies de *Leucheria* se redujo de 49 a 29. Se proponen: 27 nuevas lectotipificaciones (*Chabraea barrasiana* J. Rémy, *Chabraea gayana* J. Rémy, *Chabraea multifida* DC., *Chabraea salina* J. Rémy, *Chabraea salinasi* Phil. var. *bipinnatifida* Phil., *Chabraea suaveolens* (d'Urv.) DC. var. *integrifolia* Sch. Bip., *Chabraea suaveolens* (d'Urv.) DC. var. *pinnatifida* Sch. Bip., *Chabraea viscida* Bertero ex Colla, *Lasiorrhiza lithospermifolia* Poepp. ex Less., *Leuceria conyzoides* D. Don, *Leuceria echinoides* D. Don, *Leuceria fuegina* Phil., *Leuceria garciana* J. Rémy, *Leuceria gracilis* Albov, *Leuceria hieracioides* D. Don, *Leuceria ibari* Phil. var. *glandulosa* Speg., *Leuceria ibari* Phil. var. *sessiliflora* Speg., *Leuceria lanata* Albov fo. *virescens* Albov, *Leuceria lanata* Albov, *Leuceria candidissima* D. Don, *Leuceria coerulescens* J. Rémy, *Leuceria congesta* D. Don, *Leuceria floribunda* DC., *Leuceria rosea* Poepp. ex Less., *Leuceria runcinata* D. Don, *Leuceria scrobiculata* D. Don, *Perdicium suaveolens* d'Urv.), cinco neotipos (*Leuceria acanthoides* D. Don, *Leuceria cinerea* D. Don, *Leuceria laciniata* Hook. & Arn., *Leuceria ibari* Phil. var. *glabrata* Speg., *Leuceria millefolium* Dusén & Skottsb.), siete epítipos (*Leuceria divaricata* D. Don, *Leuceria hoffmannii* Dusén, *Leuceria lanigera* O. Hoffm. ex Dusén, *Leuceria meyeniana* Walp., *Leuceria pulchella* D. Don, *Leuceria glandulosa* D. Don, *Trixis senecioides* Hook.), 36 nuevos sinónimos y cambios en la distribución de algunas especies. Se presenta una clave, breves descripciones, ilustraciones detalladas y mapas de distribución para todas las especies de *Leucheria*.

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A Synopsis of *Leucheria* (Asteraceae, Nassauvieae), with Notes on the Morphology

Liliana Katinas,* María José Apodaca, and Jorge V. Crisci

INTRODUCTION

The South American genus *Leucheria* Lag. (Asteraceae, Nassauvieae) comprises 29 species ranging from Peru and Bolivia to southern Argentina and Chile. They are perennial acaulescent or caulescent herbs, sometimes suffrutescent, with bilabiate corollas, tailed anthers, truncate styles with a crown of collector trichomes at the apex, and a plumose pappus (Figure 1A–G). Most species have a unique feature in the Nassauvieae, which is the curious disposition of some phyllaries of the involucre, called paleaceous phyllaries (Katinas and Forte 2020). The phyllaries bend, twist, and rotate at angles up to 180°, generating an internal division or compartmentalization of the capitula (Figure 1H,I).

A complete account of the taxonomic history of *Leucheria* is found in the revisionary treatment of Crisci (1976). We briefly mention that the genus was established by Lagasca in 1811. In the next year de Candolle (1812) founded the genus *Chabraea* DC., and later, Rémy (1847, 1849) settled a difference between *Leucheria* and *Chabraea*: *Leucheria* has paleaceous phyllaries, and *Chabraea* has naked receptacles. Bentham (1873) and subsequent authors (e.g., Philippi 1894; Reiche 1905; Crisci 1976) considered *Chabraea* to be a synonym of *Leucheria* because this distinction is not very sharp.

Some authors (e.g., Don 1830; de Candolle 1838) established sections or subgenera of *Leucheria* mainly on the basis of pappus and involucre features. Many of these names are erroneously listed in some checklists as synonyms for *Leucheria*: *Cassiopea* D. Don, *Euchabraea* J. Rémy, *Euleuceria* DC., *Leucerioides* DC., *Leuceriopsis* Rchb. ex Pfeiffer, *Maclovina* DC., and *Macrobotrys* DC. (Steudel 1841; Pfeiffer 1870). In addition, several orthographic variants of the generic name can be found in the literature, such as *Leucaeria* (de Candolle 1812:66), *Leuceria* (Don 1830:212), *Leuchaeria* (Lessing 1832:10), and *Leukeria* (Endlicher 1841:249).

Crisci (1976) presented descriptions for 46 species and analyzed their morphology, including the pollen grains and chromosomes. After this revision, there were some taxonomic novelties: the new combinations *Leucheria lithospermifolia* subsp. *integrifolia* (Phil.) Grau & Zinnecker and *Leucheria viscida* (Bertero ex Colla) Grau & Zinnecker (Grau 1987); the new species from Chile, *L. graui* Katinas, M. C. Tellería, & Crisci (Katinas et al. 2008c), *L. meladensis* Katinas, Crisci, & A. E. Martic. (Katinas et al. 2018), and *L. cantillanensis* Lavandero (Lavandero et al. 2020); the new variety *L. diemii* var. *purpurea* (Ratto et al. 2014), which was further raised to the species rank (*L. arancioi* Jara-Arancio, Ratto, & Adr. Bartoli; Jara-Arancio et al. 2019); the synonymy between *Leucheria landbeckii* (Phil.) Reiche and *L. runcinata* D. Don (Teillier 2010); and the synonymy among 10 Chilean species (Apodaca et al. 2021).

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Manuscript received 19 March 2021; accepted 4 November 2021

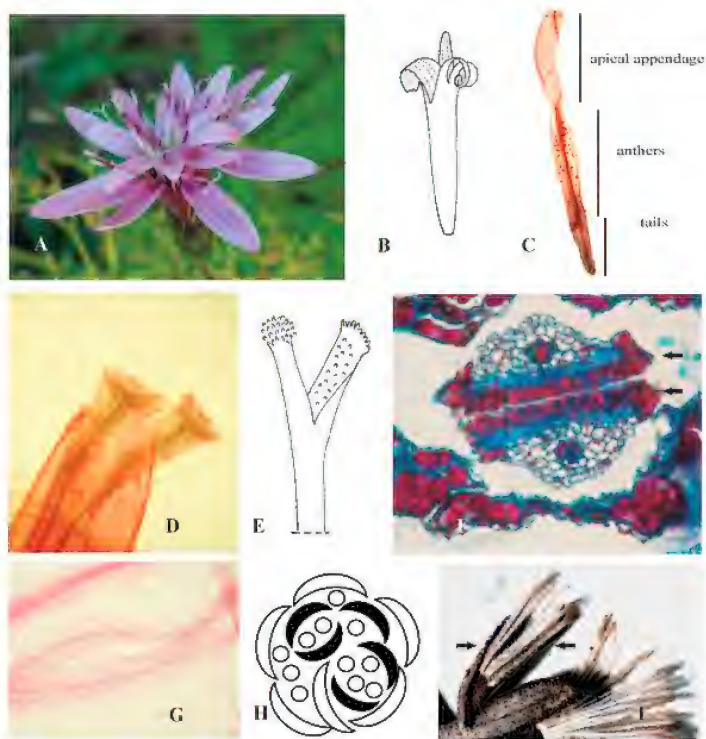


FIGURE 1. Diagnostic characters of the genus *Leucheria*. A. Capitulum with bilabiate corollas. Photograph by Florencia Dosil Hiriart. B. Bilabiate corolla diagram. C. Stamen under a light microscope. D. Style apex surrounded by the anthers showing the truncate branches with a crown of collector trichomes, light microscope. E. Style apex diagram. F. Style branches transection showing the collector trichomes in red (arrows) under a light microscope. G. Plumose pappus under a light microscope. H. Diagram of capitulum transection showing one example of compartmentalization by the outer phyllaries (in white) and the inner phyllaries (in black); the circles represent florets. I. Detail of one fruit with pappus surrounded by one outer and one inner phyllary (arrows) of the capitulum under a stereomicroscope.

A phylogenetic analysis of the tribe Nassauvieae (Katinas et al. 2008a) yielded a sister relationship between *Leucheria* and *Polyachyrus* Lag., and both are sisters to *Moscharia* Ruiz & Pav., which led to a reinterpretation of the evolution of secondary heads (i.e., capitula grouped in capitula) in the tribe. Finally, a phylogeny of *Leucheria* (Jara-Arancio et al. 2017) showed that the genus is monophyletic and comprises two main clades, one containing the acaulescent or subacaulescent species with solitary capitula and the other containing the caulescent species with multiple capitula.

From a morphological point of view, the habit, the presence and orientation of the phyllaries of the involucre, and the corolla color were characters traditionally used for distinguishing species in keys (e.g., Reiche 1905; Crisci 1976). However, these features very often show variation in the same species or in the same individual. Katinas and Forte (2020) analyzed the phyllaries of the involucre in detail and concluded that most species of *Leucheria* have both regular capitula and capitula with paleaceous phyllaries, demonstrating that this character is too variable to be useful for classification purposes. They concluded that in the course of the tribe's evolution, *Leucheria* achieved what looks like a regular capitulum, but with the remnants of an ancestral secondary head evidenced in the paleaceous phyllaries and in the capitulum compartmentalization. Apodaca et al. (2021) found that the supposedly annual species of *Leucheria* are, in fact, perennial species. These findings

allowed a new approach regarding the taxonomy of *Leucheria* because when morphological characters such as habit and presence or absence of paleaceous phyllaries are not considered, the species distinction changes drastically, resulting in new synonyms.

The new taxonomy presented here partially agrees with the phylogeny of Jara-Arancio et al. (2017). For example, the phylogenetic distinctiveness of *L. lithospermifolia* subsp. *lithospermifolia* and *L. lithospermifolia* subsp. *integrifolia* is supported by our morphological analysis, which considers them different species. On the other hand, some of the Chilean species synonymized under *L. tomentosa* (Less.) Crisci following our observations and the results of the multivariate analyses of Apodaca et al. (2021) appear in four separate clades in the phylogenetic tree of Jara-Arancio et al. (2017).

The objective of this contribution is to present a synopsis of *Leucheria*, including new interpretations of some morphological features, taxonomic novelties, species redefinitions, new synonyms, and a reconsideration of some species' geographical distributions. The morphological descriptions include only diagnostic characters with the exception of *Leucheria tomentosa*, which, because of a recent redefinition (Apodaca et al. 2021), has a full description. See Crisci (1976) for a complete taxonomic history, key to the genera of Nassauvieae, morphological analysis, pollen and chromosome number data, evolutionary insights, and complete species descriptions.

MATERIAL AND METHODS

TYPES AND TREATMENT OF NAMES

This study is based on type and regular specimens and photographs from several herbaria. Acronyms of herbaria follow Thiers (2020). For the types of Rodolfo Philippi deposited in SGO, we also consulted the work of Muñoz Pizarro (1960).

For the citation of types, the protolog information is given in quotation marks, and it is followed by the label information of the type specimen(s), except for recently described species, for which there is a complete match between the label and protolog information. In the cases where the type material consists exclusively of photographs or iconographies, an epitype was selected.

List of Herbaria

B	Botanischer Garten und Botanisches Museum Berlin-Dahlem, Zentraleinrichtung der Freien Universität Berlin
BAA	Facultad de Agronomía, Universidad de Buenos Aires
BAB	Instituto Nacional de Tecnología Agropecuaria
BAF	Universidad de Buenos Aires
BM	The Natural History Museum
BR	Meise Botanic Garden
C	University of Copenhagen
CONC	Universidad de Concepción
CORD	Herbario CORD
E	Royal Botanic Garden Edinburgh
F	Field Museum of Natural History
G	Conservatoire et Jardin botaniques de la Ville de Genève
G-DC	Conservatoire et Jardin botaniques de la Ville de Genève, collections of de Candolle
GH	Harvard University
GOET	Universität Göttingen
HAL	Martin-Luther-Universität
JE	Friedrich Schiller University Jena
K	Royal Botanic Gardens
KW	M. G. Kholodny Institute of Botany, National Academy of Sciences of Ukraine
LINN	Linnean Society of London
LP	Museo de La Plata
M	Botanische Staatssammlung München
MA	Real Jardín Botánico
MERL	Instituto Argentino de Investigaciones de las Zonas Áridas
NY	The New York Botanical Garden
OXF	University of Oxford
P	Muséum National d'Histoire Naturelle
S	Swedish Museum of Natural History
SGO	Museo Nacional de Historia Natural

SI	Instituto de Botánica Darwinion
US	Smithsonian Institution
W	Naturhistorisches Museum Wien

MORPHOLOGICAL ANALYSIS

Vegetative and reproductive organs from herbarium specimens were rehydrated in boiling water. The midregion of leaves and stems of all the species and underground organs of selected species were isolated, and transversal freehand sections were performed. Sections of underground organs were performed between 10 and 20 mm below the root apex area. Freehand sections were stained with 2% safranin, 0.5% safranin-azura blue, or 0.05% Nile blue or were left unstained and mounted with a gelatin-glycerin mounting medium. The leaf width was measured in the middle of the blade. Observations and drawings of morphological and anatomical features were carried out using a Nikon SMZ 1000 stereomicroscope and a Nikon Eclipse E200 light microscope equipped with a camera lucida. Photographs were taken with a Nikon Coolpix S10. Plant illustrations were drawn by LK and inked by Laura Blanco and Vanesa Gaido (except *L. cantil-lanensis*, *L. meladensis*, and *L. tomentosa*, which were digitally produced by LK).

DISTRIBUTION AND ECOLOGY

The information about localities, altitude, phenology, corolla color, and some other plant features (e.g., plant odor, floret fragrance) was taken from the labels of herbarium specimens (type and nontype), the type protologs, the literature (e.g., floristic treatments; Reiche 1905; Crisci 1976), and field observations. In the Additional Specimens Examined sections, only those specimens analyzed in this work are included, but in some cases, additional localities are incorporated in the distribution maps on the basis of the literature and are distinguished by white circles. The following abbreviations are employed: prov. = province; dept. = department. The regions, departments, and provinces are ordered alphabetically.

MORPHOLOGY

We will focus here on some novel aspects of internal and external morphology, many of which are helpful for species delimitation. For a complete description of the plant organs in *Leucheria* see Crisci (1976).

VEGETATIVE MORPHOLOGY

All the species of *Leucheria* are perennial herbs, although in previous studies some species were considered to be annual. From external observation, that is, considering the size of the plant and the width of the underground organs, the type of life cycle was often difficult to establish with certainty, generating hesitation

or disagreement among authors. For example, *L. rosea* Poepp. ex Less. was considered to be annual by Lessing (1832) and Rémy (1847) but perennial by Crisci (1976); *L. multiflora* Phil. was described either as an annual (e.g., Philippi 1872; Reiche 1905) or as a perennial (Crisci 1976), and the same is true for *L. oligocephala* J. Rémy, *L. tenuis* Less., *L. lithospermifolia* (Poepp. ex Less.) Reiche, *L. tomentosa* (Less.) Crisci, and *L. glandulosa* D. Don. Apodaca et al. (2021) studied the anatomy of the underground organs of the supposedly annual species and concluded that they were perennial (or at least biannual) because their roots show a structure compatible with secondary growth, with an evident peridermis.

Therefore, there are two main types of habits in *Leucheria*: (1) The first type corresponds to perennial herbs, caulescent and branched, with corymbose, racemose, or paniculate synflorescences (e.g., *L. achillaeifolia* Hook. & Arn., *L. bridgesii* Hook. & Arn., *L. glacialis* (Poepp. ex Less.) Reiche; Figure 2A,B).

The branching is evident apically, as a consequence of the arrangement of capitula in the synflorescences, but in some species (*L. polyclados* (J. Rémy) Reiche, *L. tomentosa*) the branching occurs also at the base of the plant. The basal branching must not be confused with the sprouting of the rhizome that generates new plants in some species. (2) The second type corresponds to perennial herbs, scapose, with solitary capitula, with one or more scapes per plant (e.g., *L. candidissima* D. Don, *L. diemii* Cabrera, *L. purpurea* (Vahl) Hook. & Arn.; Figure 2C,D). Sometimes the scape bifurcates, generating scapose plants with two or three capitula.

The underground organs are represented by rhizomes and roots, and in general, the only way to know if a specimen has a rhizome or a thickened tap root is by means of examining sections of these structures. The rhizomes are vertical, oblique, or horizontal, sometimes large and woody (e.g., *L. candidissima*, *L. gilliesii* Hook. & Arn.), generating a suffruticose habit (Figure 3A). Vegetative propagation occurs in *Leucheria* through

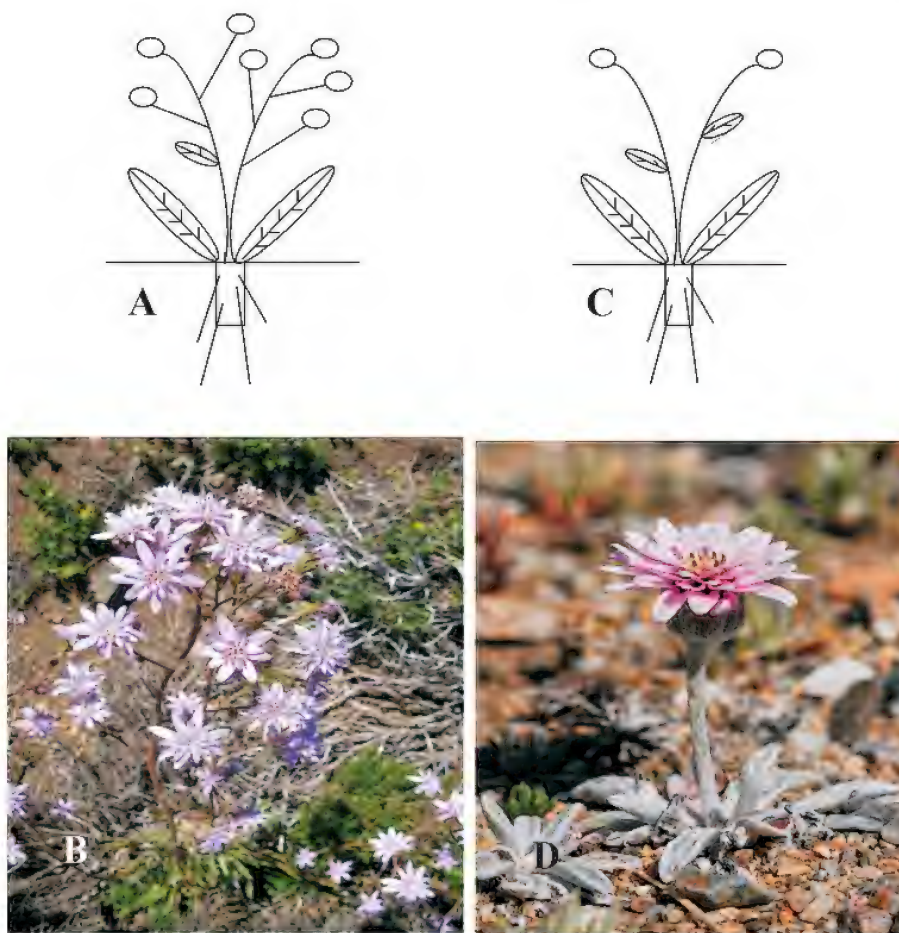


FIGURE 2. Habit. A. Caulescent perennial herb, diagram. B. *Leucheria glacialis*, a caulescent perennial herb. Photograph by Andrés Moreira Muñoz. C. Scapose perennial herb, diagram. D. *Leucheria diemii*, a scapose perennial herb. Photograph by Mauricio Bonifacino.

new roots and shoots developing from buds at the nodes of the rhizomes; these lateral shoots eventually yield new plantlets (Figure 3B).

Anatomically, the rhizomes (Figure 3C) have a parenchymatic cortex with secretory ducts (Figure 3D) close to the endodermis (Figure 3E), surrounded by a stratified layer of peridermis when the rhizome develops the secondary growth, a layer of endodermis with Casparian strips followed internally by collateral vascular tissue usually surrounded by sclerified fibers, and a parenchymatic central pith that can be invaded by xylem. The vascular tissue can be continuous, forming a cylinder or arranged in a eustele of bundles separated by medullary rays. The presence of intracortical vascular bundles is common.

Even the dwarfest plants with very thin roots have secondary growth. Anatomically, the roots (Figure 3F) have a stratified

layer of cork, followed by a few layers of cortical parenchyma with secretory ducts. The secondary vascular tissues form a continuous cylinder with parenchyma rays of variable width and the remains of the primary xylem and parenchymatic tissue at the center of the root. The phloem surrounding the xylem is arranged in a few layers; both vascular tissues are separated by the pericycle and the endodermis (Figure 3G).

The aerial stem with primary growth (Figure 4A) has an epidermal layer with long, nonglandular flagellate trichomes and glandular uniseriate trichomes, and there are several layers of collenchyma below the epidermis followed by parenchyma. The vascular bundles are surrounded by a sclerenchyma bundle sheath, sometimes associated with secretory ducts, and enclose a parenchymatous pith with thickened cell walls that sometimes becomes hollow at the center of the stem. When the stems

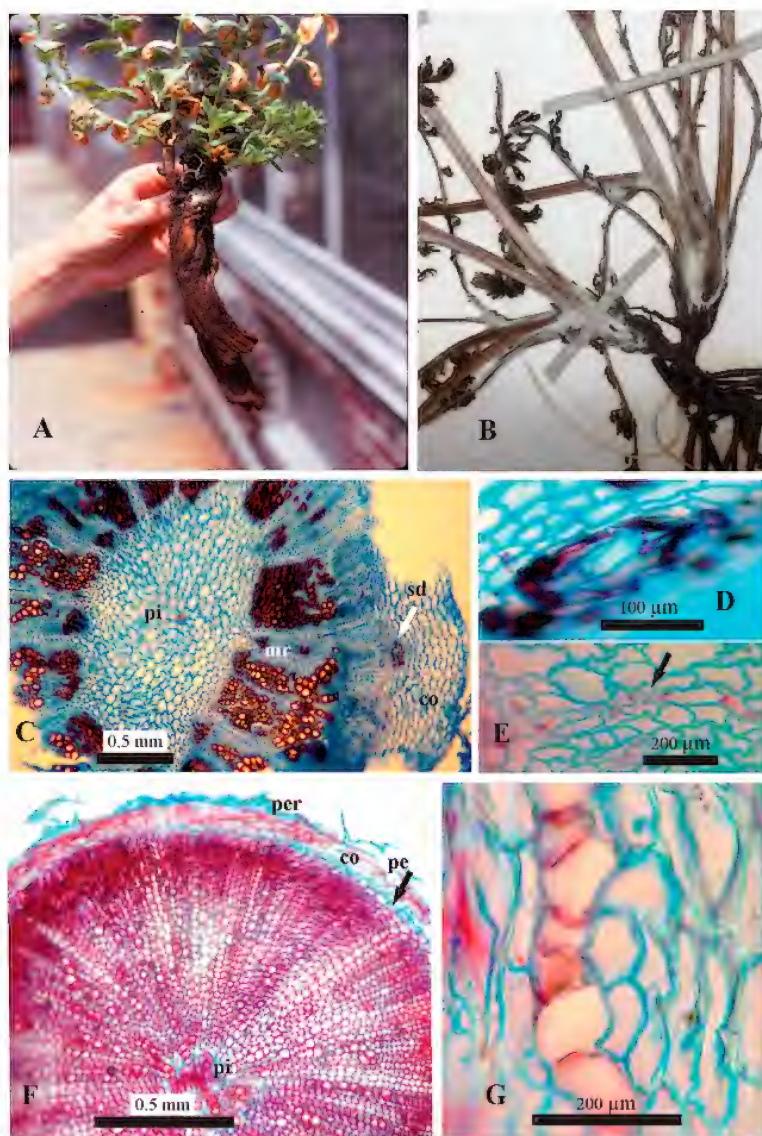


FIGURE 3. Rhizome and root. A. Lignified rhizome (*Leucheria glacialis*). B. Herbarium specimen showing vegetative reproduction through sprouting rhizome (*L. achillaeifolia*). C. Transection of rhizome (*L. gilliesii*). D. Secretory duct of rhizome (*L. gilliesii*). E. Endodermis of rhizome (*L. gilliesii*); note the Casparian strips in red (arrow). F. Transection of root with secondary growth (*L. tomentosa*). G. Endodermis of root; note the lignified strips (in red) in the radial walls (*L. tomentosa*). B, *Correa et al.* 2610 (BAB); C–E, *Boelcke et al.* 13914 (LP); F, *Jiles P.* 2292 (LP); G, *Mahu* 1039 (LP). Abbreviations: co = cortex, mr = medullary rays, pe = pericycle, per = peridermis, pi = pith, sd = secretory ducts.

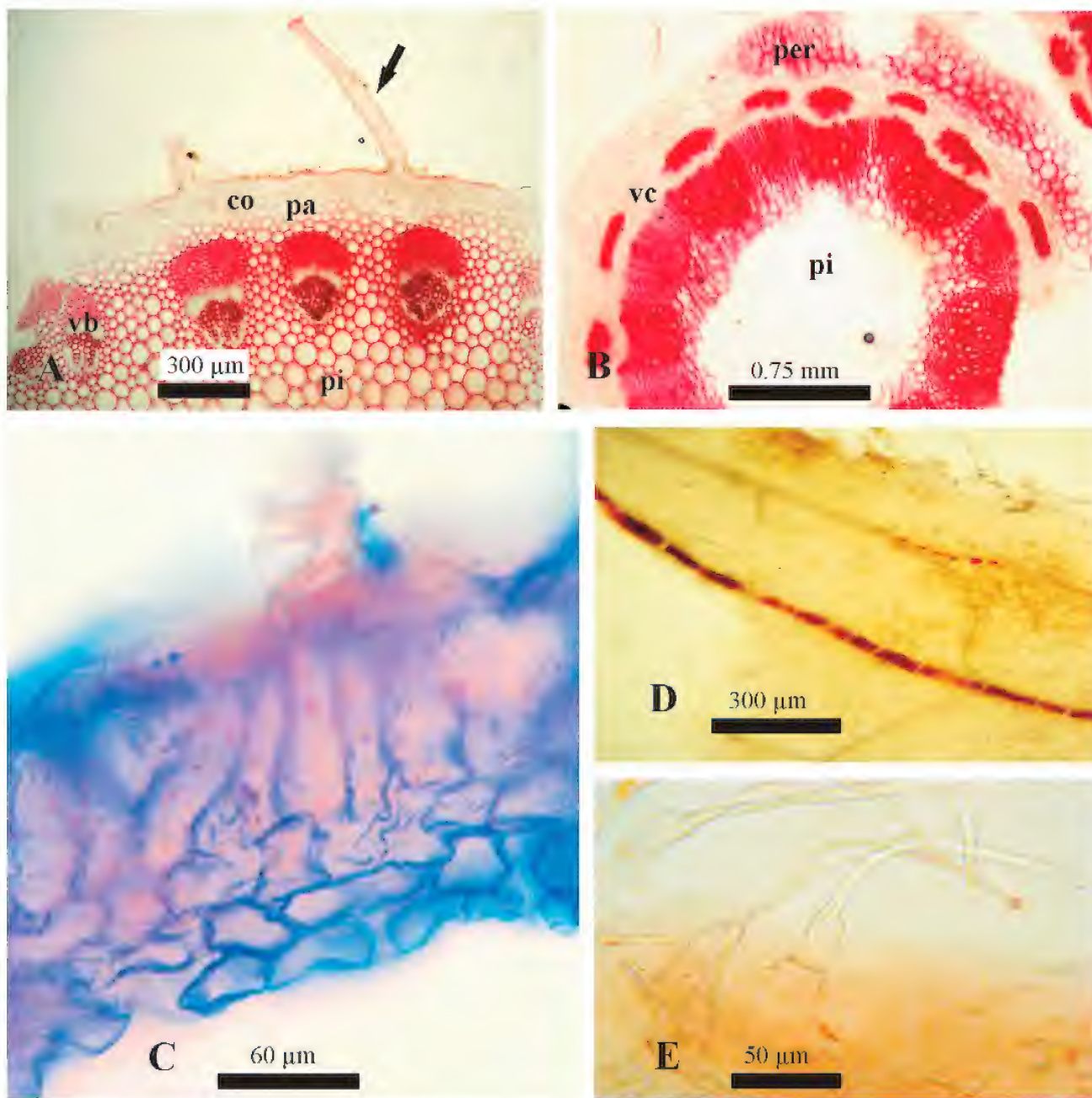


FIGURE 4. Stem and leaf. A. Transection of a stem with primary growth; the arrow shows a glandular uniseriate trichome (*Leucheria glacialis*). B. Transection of a stem with secondary growth; note the hollow pith (*L. bridgesii*). C. Transection of a leaf showing the dorsiventral mesophyll (*L. tomentosa*). D. Longitudinal section of a leaf showing the dark content of the secretory ducts (*L. eriocephala*). E. Leaf nonglandular flagellate trichome (*L. suaveolens*). A, Iglesias & Soetbeer 32 (LP); B, Marticorena & Matthei 64 (LP); C, Looser 3991 (LP); D, Cabrera & Crisci 19219 (LP); E, Moore 519 (LP). Abbreviations: co = collenchyma, pa = parenchyma, per = peridermis, pi = pith, vb = vascular bundle, vc = vascular cylinder.

develop secondary growth, they show cork and a continuous vascular cylinder (Figure 4B).

The lower leaves are subsessile to sessile with the petiole winged (i.e., pseudopetiolate), rarely petiolate (*L. meladensis*), and the upper leaves are smaller, alternate and sessile. The leaves are, in general, conspicuously pubescent, at least abaxially. In transection, the leaf has a dorsiventral mesophyll (Figure 4C) with secretory ducts close to the vascular bundles (Figure 4D); occasionally, the mesophyll is undifferentiated (e.g., *L. achillaeifolia*). The trichomes are of the same type found in the stem, that is, glandular uniseriate and nonglandular flagellate (Figure 4E). Crystals are common in the mesophyll and sometimes in the basal cells of the trichomes. The leaves are amphistomatic, and the stomata are of the anomocytic type.

The receptacle is alveolate, planate or slightly convex, glabrous, and naked. The phyllaries of the involucre are 2–5-seriate, usually with scarious margins, planate or very convex and gibbose. Twelve species (*L. candidissima*, *L. daucifolia* (D. Don) Crisci, *L. diemii*, *L. eriocephala* Speg., *L. floribunda* DC., *L. graui*, *L. lithospermifolia*, *L. nutans* (J. Rémy) Reiche, *L. purpurea*, *L. salinae* (J. Rémy) Hieron., *L. scrobiculata* D. Don, *L. suaveolens* (d'Urv.) Speg.) have exclusively regular capitula, with each row of phyllaries parallel to each other and alternately disposed with the next row. The remaining 17 species have both regular capitula (Figure 5A) and capitula with paleaceous phyllaries in general combined in the same plant. In the capitula with paleaceous phyllaries, the outer and inner phyllaries can bend, twist, and rotate, generating a capitulum compartmentalization where one or more florets are separated from other florets by the phyllaries (Figure 5B). The anatomy of the phyllaries was studied in detail by Katinas and Forte (2020), showing differences between the abaxial and adaxial epidermises of the

phyllary, bulliform-like cells in the epidermis, and a callus at the base of the phyllary.

REPRODUCTIVE MORPHOLOGY

The florets of the species of *Leucheria* are typical of the members of the tribe Nassauvieae. The corolla is zygomorphic and bilabiate, with a 3-toothed outer lip and a 2-cleft inner lip. The outer lip of the marginal corollas is radiating, and it gradually reduces in length toward the center of the capitulum (Figure 6A). The corolla is glabrous or scarcely pubescent, and sometimes the parenchyma contains druses. It is common for the corolla to show color variation in the same species and even in the same floret (e.g., the white corollas in plants of *L. floribunda* are tinged pink at the apex of the outer lip). Apically, the anthers have a well-developed lanceolate or oblong and acute connective appendage, often colored (Figure 6B). Basally, the anthers are caudate with long appendages or tails (Figure 7A) that are glabrous or, rarely, slightly papillose. Most species have a conspicuous antheropodium or anther collar (Figure 7B) and a polarized endothecium. The style is typical of the Nassauvieae, that is, cleft into two truncate branches, sometimes colored, where each branch has an apical crown of rounded papillae or pollen-collector trichomes (Figures 1D,F, 7C). Internally, the branches are completely covered by stigmatic papillae. Basally, the style has a stylopodium and a nectariferous disc (Figure 7D).

The cypselae of the species of *Leucheria* have a more or less tuberculate or blistered surface (noticed mostly with the microscope; Figure 7E), with globose epidermal cells. A carpopodium is present; sometimes it is much reduced. All the species have pubescent cypselae, with glandular trichomes and/or nonglandular twin trichomes. In some cases (e.g., *L. floribunda*) the fruits

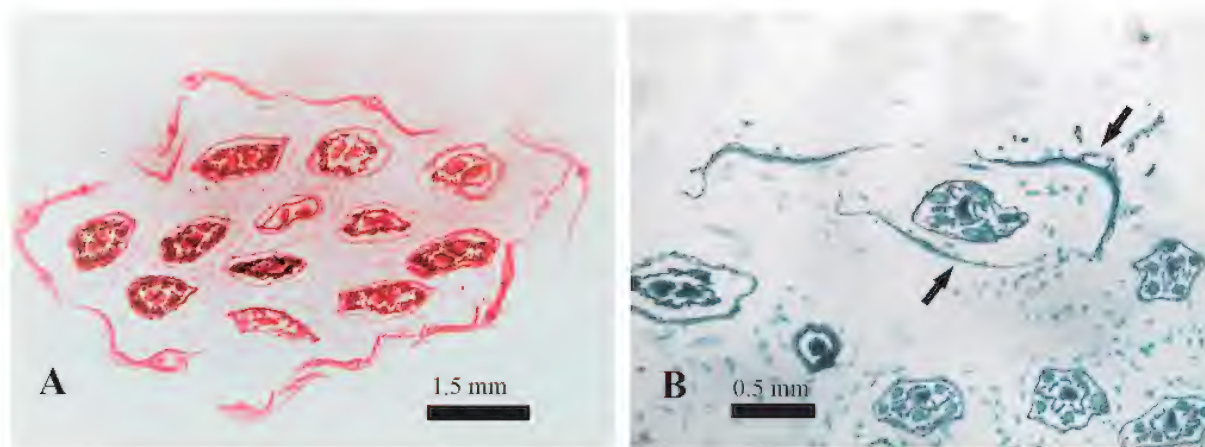


FIGURE 5. Capitula transection. A. Regular capitulum with outer and inner phyllaries parallel to each other (*L. achillaeifolia*). B. Detail of a capitulum with paleaceous phyllaries; note the outer and inner phyllaries (arrows) enclosing one floret (*L. gilliesii*). A, Hjerting & Rhan 3111 (LP); B, Zöllner 3371 (LP).

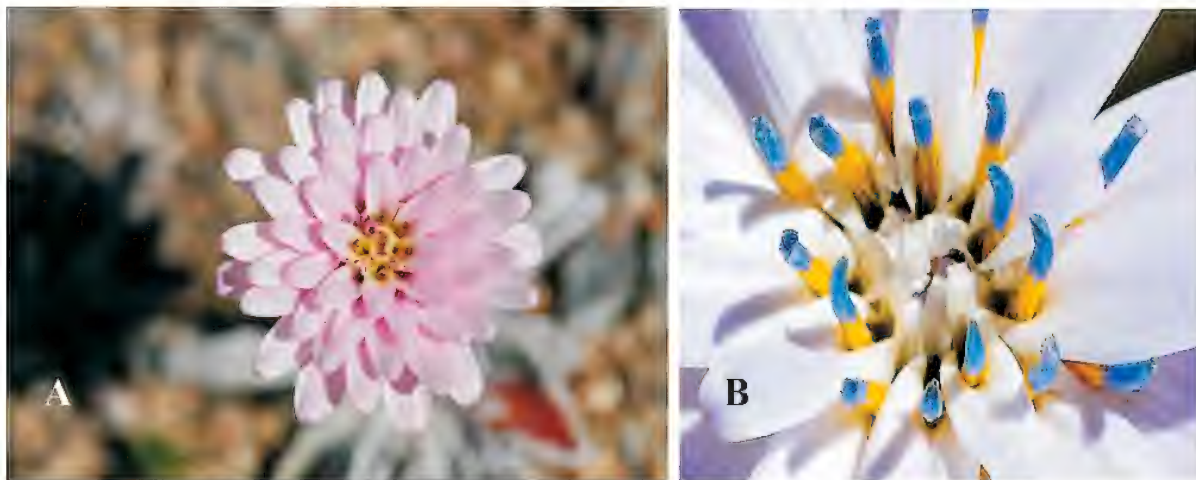


FIGURE 6. Capitula, upper view. A. Capitulum showing the outer lip of the bilabiate florets gradually reducing the length toward the center of the capitulum (*Leucheria diemii*). B. Capitulum showing the blue apical connective appendage of the anthers (*L. glacialis*). Photographs by Mauricio Bonifacino.

are apparently glabrous, but they are covered by very few short glandular trichomes, noticed only through observation with a light microscope. The glandular cypsela trichomes are biseriate (Figure 7F), rarely multiseriate (*L. suaveolens*), or uniseriate (*L. salinae*) and relatively long or very short. The twin trichomes, typical of Asteraceae, are constituted by two triangular or rectangular, short or long basal cells (one sometimes reduced) and two elongated, cylindrical or elliptic trichome cells that are completely united with each other on their longitudinal walls or scarcely separated at the apex and equal in length or slightly different, with one being slightly shorter. The twin trichomes are (1) short, 50–120 μm (Figure 7G); (2) medium size, 125–310 μm (Figure 7H); or (3) long, 400 μm or more. According to the type and number of trichomes, the cypselae are characterized here as papillose, with short and sparse trichomes (glandular trichomes or twin trichomes; Figure 7I); pilose, with medium or sometimes long and abundant glandular or twin trichomes that still allow one to see the surface of the fruit (Figure 7J); or villose, with long twin trichomes that densely and completely cover the fruit surface (Figure 7K). The fruit pubescence is useful in the distinction of some species.

The pappus (Figure 8) is deciduous, constituted by many capillary, plumose bristles arranged in one series. The bristles unite basally in a ring and sometimes fuse with one another, forming wider bristles, although this fusion does not form a paleaceous pappus. The pappus of *Leucheria daucifolia* was originally described as 2-seriate (Don 1830). Our observations, however, show that it is 1-seriate as in the rest of the species, but the fusion of bristles might give the false impression that the pappus is biseriate. Depending on the degree of pappus bristle fusion, some species have free, thin, and cylindrical bristles (e.g.,

L. amoena Phil., *L. coerulescens* J. Rémy) that can clearly be seen to be separate from each other in the union with the basal ring (Figure 9A,B); this pappus usually has a narrow basal ring and breaks into several units when manipulated. Other species (e.g., *L. achillaeifolia*, *L. daucifolia*) have wide, fused, flat, and striate bristles with dilated imbricate bases in the union with the basal ring (Figure 9C,D); this pappus has a wide basal ring and separates as one unit when manipulated. The pappus is isomorphic in most species, although a dimorphic pappus (Figure 9E) is found in *L. tomentosa*; that is, this species has a very short pappus in some marginal cypselae of the capitulum, tightly enclosed by the phyllaries of the involucre, and a long pappus in the central cypselae. The bristles are commonly plumose, and the lateral cilia have different lengths. According to the length of the cilia, the pappus can be defined as (1) long plumose, with 400–800 μm long cilia, where the cilia are several times longer than the width of the bristle (e.g., *L. achillaeifolia*, *L. daucifolia*; Figure 9F); (2) plumose, with 200–375 μm long cilia, where the cilia are visibly longer than the width of the bristle (e.g., *L. apiifolia* Phil., *L. glacialis*; Figure 9G); (3) scabrid to barbellate, with 125–175 μm long cilia, where the cilia are shorter or scarcely longer than the width of the bristle (e.g., *L. amoena*, *L. runcinata*; Figure 9H); or (4) simple, with smooth bristles, that is, without lateral cilia (Figure 9I), or sometimes minutely ciliate (exclusively in *L. floribunda*).

GEOGRAPHICAL DISTRIBUTION

Table 1 and Figure 10 show the distribution of the species of *Leucheria*. *Leucheria daucifolia* has the northernmost distribution, inhabiting Peru and Bolivia. Nine species are endemic to

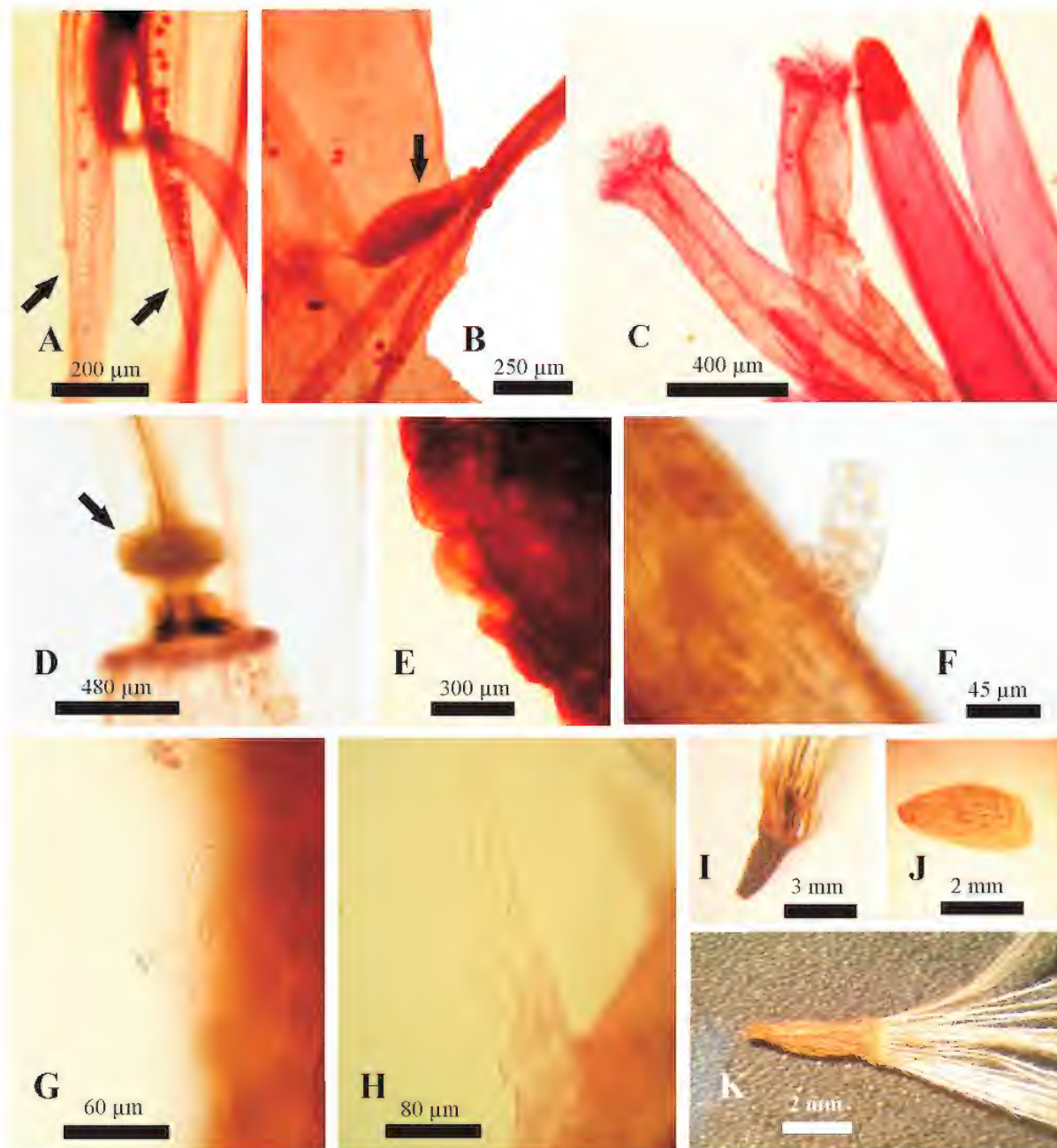


FIGURE 7. Reproductive morphology. A. Tails of the anther (arrows; *L. gayana*). B. Antheropodium (arrow) at the base of the anther; note the two tails below the antheropodium (*L. floribunda*). C. Upper part of the style (*L. suaveolens*); at the right are two appendages of the anthers that surround the style. D. Stylopodium (arrow); note below the nectariferous disc as a ring above the cypsela (*L. suaveolens*). E. Fruit showing the tuberculate surface (*L. floribunda*). F. Fruit glandular biseriata trichome (*L. eriocephala*). G. Fruit short twin trichome (*L. scrobiculata*). H. Fruit medium-size twin trichome (*L. nutans*). I–K. Stereoscopic photographs of the fruits pubescence. I. Papillose (*L. floribunda*). J. Pilose (*L. candidissima*). K. Villose (*L. gilliesii*). A, Fabris & Zuloaga 8508 (LP); B, E, King 432 (LP); C, D, Moore 519 (LP); F, Cabrera & Crisci 19219 (LP); G, Serra 31 (LP); H, Boelcke & Correa 6930 (LP); I, Ruiz Leal & Roig 15615; J, Gentili 209 (LP); K, Lagiglia 668 (LP).



FIGURE 8. Pappus. Capitulum showing several fruits with their pappus constituted by many capillary, plumose bristles arranged in one series (*Leucheria coerulescens*); note the planate receptacle (arrow) and the cypselae pilose. Some phyllaries were removed to allow observation. Photograph by Mauricio Bonifacino.

Chile (*L. apiifolia*, *L. cantillanensis*, *L. graui*, *L. hieracioides* Cass., *L. integrifolia* (Phil.) Crisci, *L. meladensis*, *L. polyclados*, *L. tomentosa*, *L. viscida* (Bertero ex Colla) Crisci; the last species has a dubious distribution in Argentina), one is endemic to Argentina (*L. diemii*), and 18 species inhabit Argentina and Chile. Most species grow at the elevations of the Andes, some of them reaching the subantarctic forests, the Patagonian steppe, and the Mediterranean scrublands of central Chile. A few species occur in the Puna plateau, on the sandy Pacific coast, and on the Falkland (Malvinas) and Navarino subantarctic islands. Figure 11 shows some species in their habitats.

TAXONOMIC TREATMENT

Table 2 shows a comparison between the species and infraspecific taxa circumscription by Crisci (1976) and this contribution.

There are four new taxa (three species and one variety); 20 species names and 1 subspecies name recognized in the revisionary study of Crisci (1976) are here considered synonymies. We performed 27 lectotypifications and established 5 neotypes, 7 epitypes, and 36 new synonyms.

Leucheria Lag.

M. Lagasca y Segura, Amen. Nat. Españ. 1(1): 32. 1811. Lectotype: *Leucheria hieracioides* Cass., selected by Cassini, Dict. Sci. Nat. 55: 392. 1828.

Lasiorrhiza Lag., Amen. Nat. Españ. 1: 32. 1811. Type: *Lasiorrhiza purpurea* (Vahl) Lag. based on *Perdicium purpureum* Vahl (= *Leucheria purpurea* (Vahl) Hook. & Arn.). Lagasca described *Lasiorrhiza* based on *Perdicium purpureum* and *P. brasiliense*, the second being the basonym of *Holcheilus brasiliensis* (L.) Cabrera. The first choice of *Perdicium purpureum* Vahl as the lectotype is that of Cassini (1817:46), who synonymized *Lasiorrhiza* and *Chabraea*.

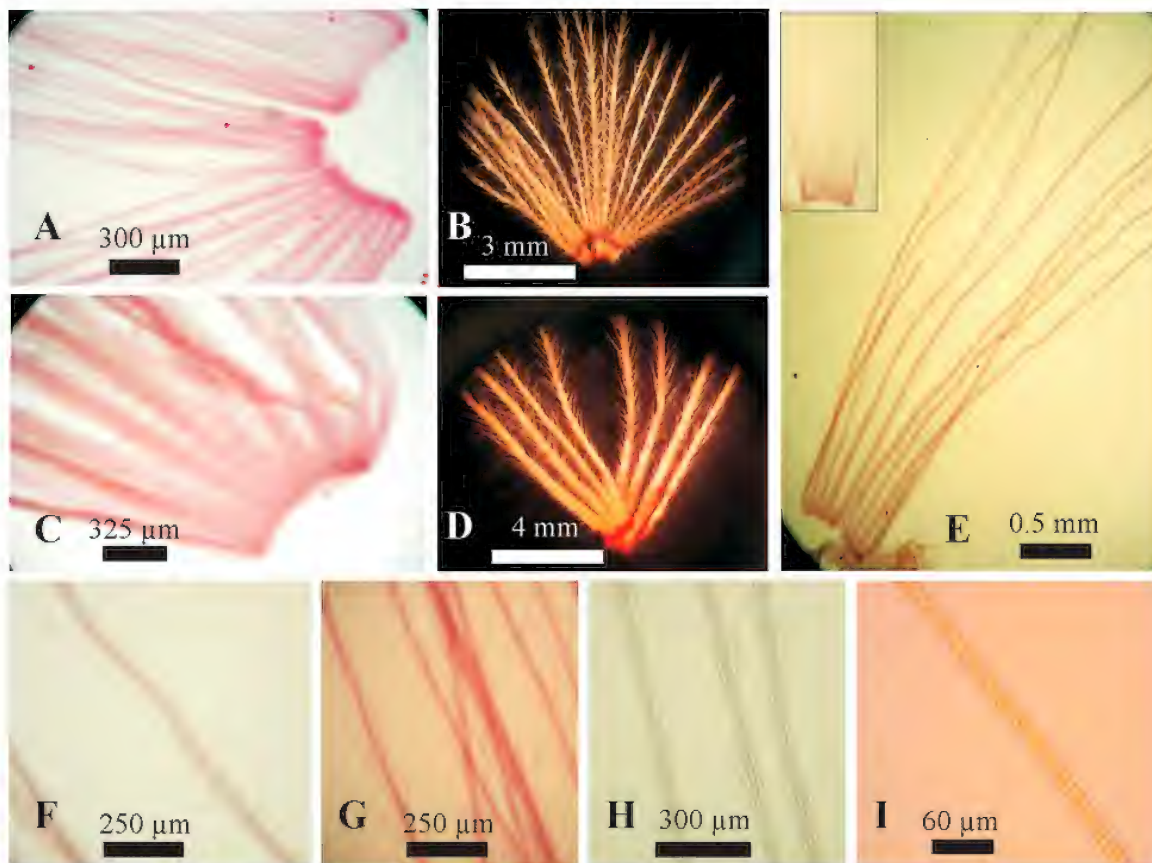


FIGURE 9. Pappus. A, B. Thin and cylindrical bristles (*L. coerulescens*). A. Microscope view. B. Stereomicroscope view. C, D. Wide and flat bristles (*L. daucifolia*). C. Microscope view. D. Stereomicroscope view. E. Dimorphic pappus (*L. tomentosa*), with short pappus (inset) and long pappus. F. Long plumose bristles (*L. suaveolens*). G. Plumose bristles (*L. glacialis*). H. Barbellate bristles (*L. runcinata*). I. Smooth bristle (*L. floribunda*). A, B, Boelcke 1778 (LP); C, D, Tovar 1147 (LP); E, Zöllner 3682 (LP); F, Moore 519 (LP); G, Iglesias & M. Soetbeer 32 (LP); H, Fabris & Marchionni 2353 (LP); I, King 432 (LP).

Chabraea DC., Ann. Mus. Natl. Hist. Nat. 19: 65, 71, pl. 5, tab. 14. 1812, *nom. illeg.*, non *Chabraea* Adans., Fam. Pl. 2: 234. 1763 (Lythraceae), *nom. illeg.*, nec *Chabraea* Bubani, Fl. Pyren. 2: 640. 1899 (Lythraceae). Type: *Chabraea purpurea* (Vahl) DC., based on *Perdicium purpureum* Vahl (= *Leucheria purpurea* (Vahl) Hook. & Arn.). Adanson's (1763) generic names are invalid because they are identical to and used simultaneously as unitary designations of species (Parkinson 1987a, 1987b). De Candolle (1812) established *Chabraea* DC., but it is a superfluous name because Lagasca (1811) established *Lasiorrhiza* one year before (both names are based on the same type specimen). Later, Bubani (1899) reestablished the name *Chabraea* Bubani for Lythraceae.

Bertolonia DC. Ann. Mus. Natl. Hist. Nat. 19: 519, pl. 5, tab. 14. 1812, *nom. rej.*, non *Bertolonia* Spin, Jard. St. Sebastien: 24. 1812, *nom. rej.* (= *Myoporum* Banks & Sol. ex G. Forst., Myoporaceae), nec *Bertolonia* Raf. ex Desv., Amer. Monthly Mag. & Crit. Rev.: 267. 1818, *nom. nud. pro syn.* (= *Lippia* L., Verbenaceae), nec *Bertolonia* Spreng., Neue

Entdeck. Pflanzenk. 2: 110. 1821, *nom. rej.* (= *Chrysochlamys* Poepp., Clusiaceae), nec Raddi, Quar. Piant. Nuov. Bras.: 5. 1820, *nom. cons.* (Melastomataceae), nec Moc. & Sessé ex DC., Prodr. 2: 589. 1825, *nom. nud. pro syn.* (= *Cercocarpus* Kunth, Rosaceae). Type: *Bertolonia purpurea* (Vahl) DC., based on *Perdicium purpureum* Vahl (= *Leucheria purpurea* (Vahl) Hook. & Arn.). The footnote of de Candolle (1812) in the index ("Indication des planches du XIXe volume") is confusing: "C'est par erreur qu'en a écrit bas de la plante Bertolonia au lieu de Chabraea" (It is by mistake that it is written *Bertolonia* in place of *Chabraea* at the bottom of the plate). However, the name at the bottom of the iconography says "*Chabraea purpurea*" and not "*Bertolonia purpurea*." Apparently, de Candolle noted that *Chabraea* was a name in use and changed it to the name *Bertolonia* in the index, ignoring that *Bertolonia* also was a name already in use.

Frageria DC. ex Cass., Opusc. Phytol. 2: 153. 1826, *nom. nud. pro syn.*, non *Frageria* Delile ex Steud., Nomencl. Bot. (ed. 2), 1: 645. 1840.

TABLE 1. Geographical distribution of the species of *Leucheria*, according to country and habitat. Symbols are defined as follows: x, species is present; —, species is absent; ?, presence or absence is unresolved.

Species	Country				Habitat					Coastal sandy areas
	Argentina	Bolivia	Chile	Peru	Andean ranges (including coastal ranges)	Subantarctic forests	Patagonian steppe	Puna	Mediterranean scrubs	
<i>L. achillaeifolia</i>	x	—	x	—	—	x	x	—	—	x
<i>L. amoena</i>	x	—	x	—	x	—	—	—	—	—
<i>L. apiifolia</i>	—	—	x	—	x	—	—	—	—	—
<i>L. bridgesii</i>	x	—	x	—	x	—	—	—	—	—
<i>L. candidissima</i>	x	—	x	—	x	—	—	—	—	—
<i>L. cantillanensis</i>	—	—	x	—	x	—	—	—	—	—
<i>L. coerulescens</i>	x	—	x	—	—	x	—	—	—	—
<i>L. daucifolia</i>	x	x	x	x	x	—	—	x	—	—
<i>L. diemii</i>	x	—	—	—	—	x	x	—	—	—
<i>L. eriocephala</i>	x	—	x	—	x	x	—	—	—	—
<i>L. floribunda</i>	x	—	x	—	x	—	—	—	—	—
<i>L. gayana</i>	x	—	x	—	x	—	—	—	—	—
<i>L. gilliesii</i>	x	—	x	—	x	—	—	—	—	—
<i>L. glacialis</i>	x	—	x	—	x	x	—	—	—	—
<i>L. graui</i>	—	—	x	—	x	—	—	—	—	—
<i>L. hieracioides</i>	—	—	x	—	x	—	—	—	x	—
<i>L. integrifolia</i>	—	—	x	—	x	—	—	—	—	—
<i>L. lithospermifolia</i>	x	—	x	—	x	—	—	—	—	—
<i>L. meladensis</i>	—	—	x	—	—	—	—	—	x	—
<i>L. nutans</i>	x	—	x	—	x	x	—	—	—	—
<i>L. polyclados</i>	—	—	x	—	x	—	—	—	—	—
<i>L. purpurea</i>	x	—	x	—	x	x	x	—	—	—
<i>L. rosea</i>	x	—	x	—	x	—	—	—	x	—
<i>L. runcinata</i>	x	—	x	—	x	—	—	x	—	—
<i>L. salinae</i>	x	—	x	—	x	—	—	—	—	—
<i>L. scrobiculata</i>	x	—	x	—	x	—	—	—	—	—
<i>L. suaveolens</i>	x	—	x	—	x	x	x	—	—	x
<i>L. tomentosa</i>	—	—	x	—	x	—	—	—	x	x
<i>L. viscida</i>	?	—	x	—	x	—	—	—	—	—

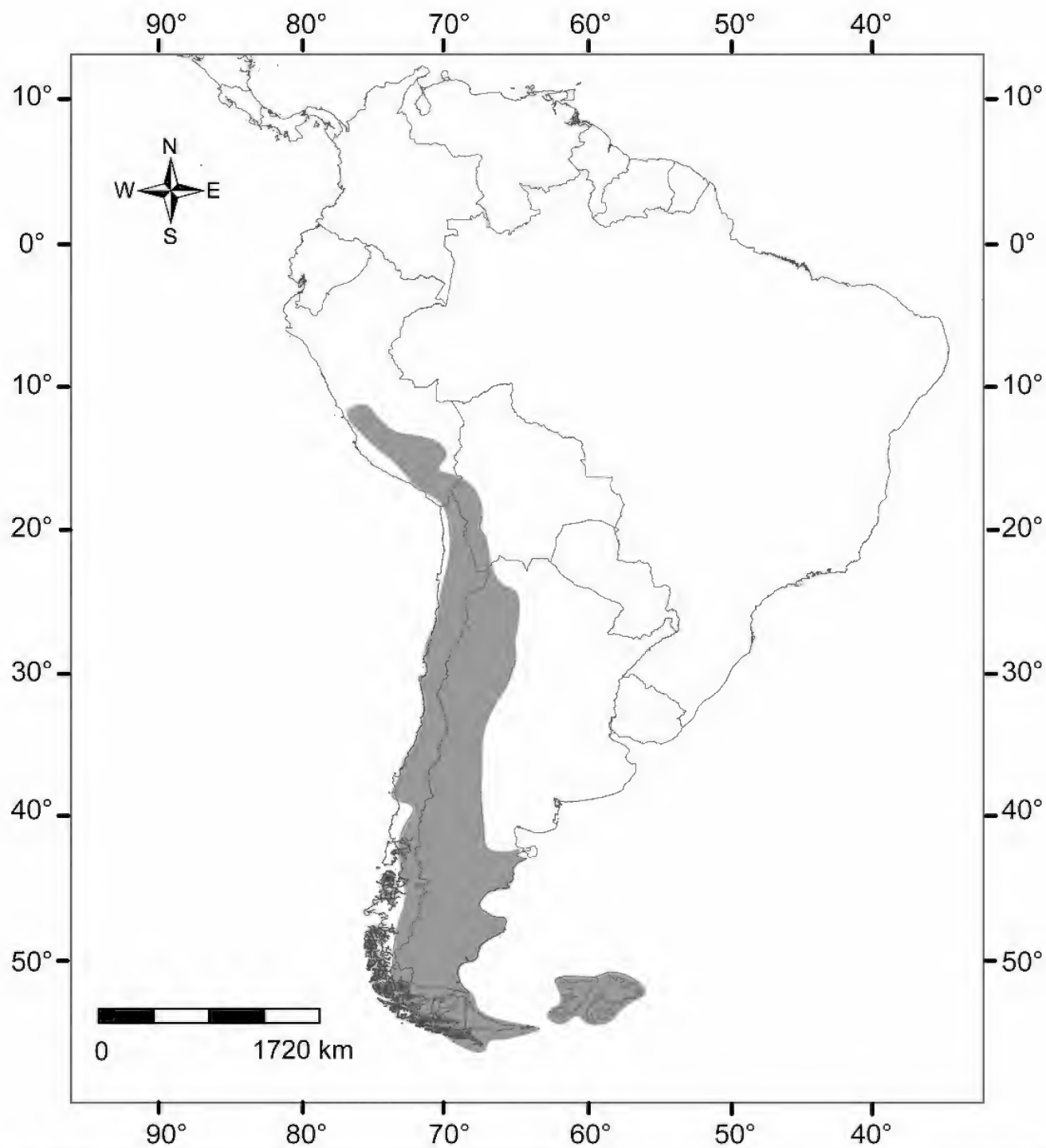


FIGURE 10. Geographical distribution of *Leucheria*.



FIGURE 11. Distribution and habitat. A. *Leucheria achillaeifolia* in the Patagonian steppe, Neuquén Province, Argentina. B. *Leucheria tomentosa* in the port city of Huasco, Atacama Region, Chile. C. *Leucheria eriocephala* in the mountains of Sierra Nevada, Araucanía Region, Chile. D. *Leucheria floribunda*, synflorescence. E. *Leucheria floribunda* in the mountains of Juncal, Metropolitana de Santiago Region, Chile. F. *Leucheria purpurea* close to the Andes, Santa Cruz Province, Argentina. G. *Leucheria tomentosa* in the dunes of Tunquén in the Valparaíso Region, Chile. H. *Leucheria scrobiculata* in Río Maipo valley in the Andes of Metropolitana de Santiago Region, Chile. I. *Leucheria runcinata* in the mountains of Valle Nevado, Metropolitana de Santiago Region, Chile. A, C, F, photographs by Mauricio Bonifacino. B, D, E, I, photographs by Andrés Moreira Muñoz. G, H, photographs by Sebastián Teillier.

TABLE 2. Comparison of the circumscription of species and infraspecific taxa of *Leucheria* by Crisci (1976) and this work. A dash (—) indicates that the taxon was not present in Crisci (1976). Certain sources for this work are indicated in the table footnotes.

Crisci (1976)	This work
1. <i>Leucheria achillaeifolia</i>	1. <i>Leucheria achillaeifolia</i>
2. <i>L. amoena</i>	2. <i>L. amoena</i>
3. <i>L. apiifolia</i>	3. <i>L. apiifolia</i>
—	<i>L. arancioi</i> ^a is a synonym of <i>L. diemii</i> var. <i>purpurea</i>
4. <i>L. bridgesii</i>	4. <i>L. bridgesii</i>
5. <i>L. candidissima</i>	5. <i>L. candidissima</i>
6. <i>L. cerberoana</i>	Synonym of <i>L. tomentosa</i>
—	6. <i>L. cantillanensis</i> ^b
7. <i>L. coerulescens</i>	7. <i>L. coerulescens</i>
8. <i>L. congesta</i>	Synonym of <i>L. runcinata</i>
9. <i>L. cumingii</i>	Synonym of <i>L. tomentosa</i>
10. <i>L. daucifolia</i>	8. <i>L. daucifolia</i>
11a. <i>L. diemii</i>	9a. <i>L. diemii</i> var. <i>diemii</i>
—	9b. <i>L. diemii</i> var. <i>purpurea</i> ^c
12. <i>L. eriocephala</i>	10. <i>L. eriocephala</i>
13. <i>L. floribunda</i>	11. <i>L. floribunda</i>
14. <i>L. garciana</i>	Synonym of <i>L. gilliesii</i>
15. <i>L. gayana</i>	12. <i>L. gayana</i>
16. <i>L. gilliesii</i>	13. <i>L. gilliesii</i>
17. <i>L. glabriuscula</i>	Synonym of <i>L. tomentosa</i>
18. <i>L. glacialis</i>	14. <i>L. glacialis</i>
19. <i>L. glandulosa</i>	Synonym of <i>L. tomentosa</i>
—	15. <i>L. graui</i> ^d
20. <i>L. hahnii</i>	Synonym of <i>L. suaveolens</i>
21. <i>L. hieracioides</i>	16. <i>L. hieracioides</i>
22. <i>L. integrifolia</i>	17. <i>L. integrifolia</i>
23. <i>L. landbeckii</i>	Synonym of <i>L. runcinata</i>
24. <i>L. leontopodioides</i>	Synonym of <i>L. suaveolens</i>
25. <i>L. lithospermifolia</i>	18. <i>L. lithospermifolia</i>
26. <i>L. magna</i>	Synonym of <i>L. glacialis</i>
—	19. <i>L. meladensis</i> ^e
27. <i>L. menana</i>	Synonym of <i>L. tomentosa</i>
28. <i>L. millefolium</i>	Synonym of <i>L. purpurea</i>
29. <i>L. multiflora</i>	Synonym of <i>L. tomentosa</i>
30. <i>L. nutans</i>	20. <i>L. nutans</i>
31. <i>L. oligocephala</i>	Synonym of <i>L. tomentosa</i>
32. <i>L. paniculata</i>	Synonym of <i>L. glacialis</i>
33. <i>L. papillosa</i>	Synonym of <i>L. eriocephala</i>
34. <i>L. polyclados</i>	21. <i>L. polyclados</i>
35. <i>L. pteropogon</i>	Synonym of <i>L. salinae</i>
36. <i>L. purpurea</i>	22. <i>L. purpurea</i>

TABLE 2. (Continued).

Crisci (1976)	This work
37. <i>L. rosea</i>	23. <i>L. rosea</i>
38. <i>L. runcinata</i>	24. <i>L. runcinata</i>
39a. <i>L. salina</i> subsp. <i>salina</i>	25. <i>L. salinae</i>
39b. <i>L. salina</i> subsp. <i>zöllneri</i>	Synonym of <i>L. salinae</i>
40. <i>L. scrobiculata</i>	26. <i>L. scrobiculata</i>
41. <i>L. senecioides</i>	Synonym of <i>L. tomentosa</i>
42. <i>L. suaveolens</i>	27. <i>L. suaveolens</i>
43. <i>L. tenuis</i>	Synonym of <i>L. tomentosa</i>
44. <i>L. thermarum</i>	Synonym of <i>L. glacialis</i>
45. <i>L. tomentosa</i>	28. <i>L. tomentosa</i> ^f
46. <i>L. viscida</i>	29. <i>L. viscida</i>

^a Jara-Arancio et al. 2019.^b Lavandero et al. 2020.^c Ratto et al. 2014.^d Katinas et al. 2008.^e Katinas et al. 2018.^f Apodaca et al. 2021.

Steudel (1840) attributed this name to Alire Delile, a French botanist who worked mainly with Egyptian flora, and considered it a synonym of *Lasiorrhiza*. We could not find a reference to this name in Delile's bibliography prior to 1840.

Ptilurus D. Don, Trans. Linn. Soc. London 16: 218. 1830. Type: *Ptilurus daucifolius* D. Don (= *Leucheria daucifolia* (D. Don) Crisci).

Eizaguirrea J. Rémy, Fl. Chil. 3: 401. 1847. Type: *Eizaguirrea candollei* J. Rémy (= *Leucheria floribunda* DC.).

Mimela Phil., Anales Univ. Chile 27: 336. 1865. Type: *Mimela pedicularifolia* Phil. (= *Leucheria scrobiculata* D. Don).

Clybatis Phil., Anales Univ. Chile 41: 742. 1872. Type: *Clybatis volkmanni* Phil. (= *Leucheria nutans* (J. Rémy) Reiche).

Perennial herbs, rhizomatous and/or with tap roots, often suffruticose, caulescent and branched at the base or at the apex or acaulescent and scapose, occasionally the buds of the rhizome forming plantlets evidenced by more than one rosette of leaves. Rhizomes vertical, oblique, or horizontal, thin or thick and woody, aerial stems terete in cross section, subglabrous or pubescent. Leaves simple, pinnately veined, tomentose or subglabrous adaxially, commonly tomentose abaxially, with glandular uniseriate and nonglandular, flagellate trichomes; lower leaves subrosulate to rosulate, frequently accompanied by dry petioles, blades entire, dentate or pinnately partite, midvein cylindrical or planate, wide, and continuous with the petiole (petiole winged) or, rarely, petiolate (petiole not winged); upper leaves alternate, sessile, clasping, or subsessile, scarce to numerous, similar to the lower leaves but smaller, to scalelike near the capitula. Capitula homogamous, discoid, solitary, 2 or 3 by bifurcation of the scape, or in many-branched dense or loose cymes arranged in corymbiform, racemiform or paniculiform synflorescences.

Receptacle alveolate, planate to slightly convex, glabrous, naked. Involucre campanulate or hemispherical, phyllaries 2–5-seriate, planate or very concave, sometimes enfolding florets or fruits, imbricate and in parallel rows or, more commonly, some phyllaries functioning as palea (paleaceous phyllaries) by their oblique to perpendicular position in the receptacle, surrounding groups of florets and fruits; outer phyllaries shorter than the inner phyllaries or equal in length, margin usually scarious, glabrous, glandular-pubescent, tomentose, or densely lanose; inner phyllaries glabrous or subglabrous. Florets isomorphic, corolla zygomorphic, bilabiate, outer lip 3-toothed, radiating in the marginal florets, inner lip 2-cleft, glabrous or scarcely pubescent, corolla white, blue, lilac, pink, purple, rarely yellow. Anthers caudate, tails long, glabrous or slightly papillose, apical anther appendage lanceolate or oblong, acute, often colored, filament smooth, with antheropodium or anther collar, endothelial cells with polarized thickenings. Style cleft into 2 truncate branches, each branch with an apical crown of cylindrical pollen-collecting papillae, internally completely covered by short stigmatic papillae, basal stylopodium surrounded by a nectariferous disc. Cypselsae turbinate, obovoid or oblong, surface tuberculate, densely or slightly pubescent, short, medium, or long twin trichomes, biseriate glandular trichomes, rarely pluriseriate or uniseriate glandular trichomes, with carpopodium conspicuous or very reduced. Pappus 1-seriate, capillary, isomorphic with all the cypselsae of the capitulum bearing pappus of the same length or, rarely, dimorphic with some marginal cypselsae bearing a shorter, sometimes scaly pappus, bristles thin and cylindrical or thick and flat, plumose or scabrid to barbellate, rarely simple, united in a basal ring, caducous, white or whitish. Pollen spheroidal, small or medium size, tricolporate, microechinate with few developed

microspines, exine distinctly bilayered, ectosexine and endosexine clearly columellate, exine *Oxyphyllum* type (Crisci 1974a, 1976; Katinas et al. 2008b). $n = 19, 20$ (Crisci 1974a, 1976).

Andean–Patagonian genus of 29 species distributed from Peru to the subantarctic islands (Falkland [Malvinas], Navarino). The species grow at the elevations of the Andes, the subantarctic

forests, the Patagonian steppe, the Mediterranean scrublands and the Pacific coast of central Chile, and the Puna, from sea level to 5,000 m above sea level (masl).

The generic name refers to the Greek λευκος, “white,” and εσιον, “wool,” for the white pubescence of the stems and leaves of many species.

KEY TO THE SPECIES OF *LEUCHERIA*

1. Scapose herbs, with scape simple or bifurcate; capitula solitary or 2 or 3 by scape bifurcation 2
 2. Lower leaves bi- or tripinnatisect 22. *L. purpurea*
 - 2'. Lower leaves entire, lobate or pinnatisect 3
 3. Lower leaves white lanose 4
 4. Leaves entire or somewhat dentate. 9. *L. diemii*
 - 4'. Leaves lobate to pinnatisect 5
 5. Scares thin; the capitula do not surpass or scarcely surpass the leaves; fruits pilose, trichomes ~200 μ m long 5. *L. candidissima*
 - 5'. Scares thin or conspicuously widened below the capitula; the capitula noticeably surpass the leaves; fruits shortly papillose, trichomes ~50 μ m long 27. *L. suaveolens*
 - 3'. Lower leaves glabrous or moderately pubescent but not white lanose 6
 6. Lower leaves entire, sinuate-dentate, or dentate or lobate only at the apex. 20. *L. nutans*
 - 6'. Lower leaves partite 7
 7. Lower leaves with minute lobes imbricate 26. *L. scrobiculata*
 - 7'. Lower leaves with evident lobes distinct from each other, not imbricate 10. *L. eriocephala*
- 1'. Caulscent herbs, with synflorescences of more than 3 (usually many) capitula 8
 8. Pappus dimorphic: marginal fruits with short pappus (0.8–1 mm long) and central fruits with long pappus (2–5 mm long) 28. *L. tomentosa*
 - 8'. Pappus isomorphic: marginal and central fruits with pappus of the same length 9
 9. Lower leaves bi- or tripinnatisect or pinnatisect with the lobes partite 10
 10. Midvein of the lower leaves planate 11
 11. Leaves tomentose on the abaxial side; pappus bristles scabrid to barbellate 7. *L. coerulescens*
 - 11'. Leaves glandulose on both surfaces; pappus bristles plumose 12
 12. Pappus 8–9 mm long 8. *L. daucifolia*
 - 12'. Pappus 5–7 mm long 13
 13. Involucres 10–13 mm high; corollas yellow; cypselae with typical and atypical (crenate) twin trichomes, sparse glandular biseriate trichomes 15. *L. graui*
 - 13'. Involucres 5–10 mm high; corollas white or pink; cypselae with typical twin trichomes and abundant glandular uniseriate trichomes 25. *L. salinae*
 - 10'. Midvein of the lower leaves cylindrical 14
 14. Involucres 5–8 mm high; leaves bi- or tripinnatisect. 1. *L. achillaeifolia*
 - 14'. Involucres 10–14 mm high; leaves pinnatipartite, pinnatisect 14. *L. glacialis*
 - 9'. Lower leaves entire to pinnatisect, lobes (when present) entire or dentate 15
 15. Involucres more than 10 mm high 16
 16. Leaves entire, mucronate, dentate-crested to pinnatifid, tomentose or lanose on both surfaces 17. *L. integrifolia*
 - 16'. Leaves commonly pinnatipartite to pinnatisect, abaxially lanose or tomentose, adaxially scarcely pubescent. 14. *L. glacialis*
 - 15'. Involucres 5–10 mm high 17
 17. Involucres 4- or 5-seriate; pappus bristles smooth or minutely ciliate 11. *L. floribunda*
 - 17'. Involucres 2- or 3-seriate; pappus bristles scabrid to barbellate or plumose 18
 18. Plants lanose (the pubescence is homogeneous and compact and covers the whole surface of the stem) 19
 19. Lower leaves pinnatisect; pappus bristles scabrid to barbellate 23. *L. rosea*
 - 19'. Lower leaves entire to lobate; pappus bristles plumose 20
 20. Capitula without paleaceous phyllaries 18. *L. lithospermifolia*
 - 20'. Capitula with paleaceous phyllaries 13. *L. gilliesii*

- 18'. Plants glandulose- or araneose-pubescent (the pubescence is distributed by sectors and does not cover the whole surface of the stem) 21
21. Lower leaves entire, sometimes sparsely toothed, with the petiole not winged . . . 19. *L. meladensis*
- 21'. Lower leaves lobate to pinnatisect, with the petiole winged 22
22. Leaves with all or most of the lobes entire 23
23. Small capitula, up to 6(–7) mm high 24
24. Leaves obovate; outer phyllaries orbicular-ovate, obtuse at the apex . . . 2. *L. amoena*
- 24'. Leaves oblanceolate; outer phyllaries lanceolate, attenuate at the apex . . . 4. *L. bridgesii*
- 23'. Large capitula, more than 7.2 mm high 25
25. Leaf margins revolute; cypselae villose 29. *L. viscida*
- 25'. Leaf margins planate; cypselae pilose 12. *L. gayana*
- 22'. Leaves with all or most of the lobes dentate to partite 26
26. Phyllaries sparsely to densely lanose (sometimes mixed with few glandular trichomes) 16. *L. hieracioides*
- 26'. Phyllaries densely glandulose (sometimes mixed with few nonglandular trichomes) . . . 27
27. Leaf segments lacerate; pappus bristles scabrid to barbellate 24. *L. runcinata*
- 27'. Leaf segments entire, mucronate or dentate; pappus bristles plumose 28
28. Leaves abaxially tomentose, lobes of the lower leaves up to 1 mm wide, lengthily attenuated and acute; branches of the synflorescence usually flexuous 21. *L. polyclados*
- 28'. Leaves glabrous or glandular pubescent on both surfaces, lobes of the lower leaves more than 1 mm wide, shortly mucronate; branches of the synflorescence straight 29
29. Midvein of lower leaves planate 3. *L. apiifolia*
- 29'. Midvein of lower leaves cylindrical 6. *L. cantillanensis*

1. *Leucheria achillaeifolia* Hook. & Arn., Companion Bot. Mag. 2: 43. 1836. "Port Desire, C. Darwin, Esq. (N. 391)." *Lasiorrhiza achillaeifolia* (Hook. & Arn.) Macloskie, Rep. Princeton Univ. Exp. Patagonia, Botany 8(2): 888. 1906. Type: ARGENTINA, Prov. Santa Cruz: Port Desire [Puerto Deseado], *C. Darwin 391* (holotype: K000504392 digital image!). Figures 11A, 12.

Chabrea multifida DC., Prodr. 7: 60. 1838. "In Patagonia ad Portum Desideratum legit cl. Née." *Lasiorrhiza multifida* (DC.) Kuntze, Revis. Gen. Pl. 1: 350. 1891. *Leucheria multifida* (DC.) S. Moore, J. Bot. 42: 376. 1904. Type: ARGENTINA, Prov. Santa Cruz: Ex Portum Desiderato [Puerto Deseado], *Née s.n.* (lectotype designated here: specimen MA 242488 with the original label, digital image!; isolectotypes: MA 242488 digital images!, two sheets holding the transcription of the original herbarium label). Port Desiré, *Née s.n.* (isolectotype: G-DC00492902 digital image!).

Chabreaa tenuisecta Sch. Bip., Bonplandia 4: 55. 1856, *nom. nud. pro syn.* *Lasiorrhiza tenuisecta* (Sch. Bip.) Kuntze, Revis. Gen. Pl. 1: 350. 1891, *syn. nov.*

Chabreaa fragrans Phil., Linnaea 29: 4. 1858. "Prope lacum andinum Malvarco [Varvarco] legit orn Germain." *Lasiorrhiza fragrans* (Phil.) Kuntze, Revis. Gen. Pl. 1: 350. 1891. Type: ARGENTINA, Prov. Neuquén: Cerca del lago andino de Malvarco, *P. Germain s.n.* (holotype: SGO 605161, photograph LP!).

Leucheria ibari Phil., Anales Univ. Chile 87: 99. 1894. "In Patagonia australi ad flumen Santa Cruz legit orn. Ramon Vidal." *Lasiorrhiza ibari* (Phil.) Macloskie, Rep. Princeton Univ. Exp. Patagonia, Botany 8(2): 890. 1906. Type: ARGENTINA, Prov. Santa Cruz: Patagonia austral, río Santa Cruz, *R. Vidal s.n.* (holotype: SGO 608611, photograph LP!).

Leucheria anthemidifolia Phil., Anales Univ. Chile 87: 102. 1894. "Ad lacum Pinto in Patagonia australi, legit Henricus Ibar." *Lasiorrhiza anthemidifolia* (Phil.) Kuntze, Revis. Gen. Pl. 3(3): 161. 1898. Type: CHILE, Prov. Magallanes: Lago Pinto, Dec 1877, *E. Ibar s.n.* (holotype: SGO 60860, photograph LP!; isotypes: JE00004614 digital image!, LP s.n.!, LP002128 digital image!).

Leucheria ibari Phil. var. *glabrata* Speg., Revista Fac. Agron. Univ. Nac. La Plata 3: 538. 1897. "Prope Lago Argentino, anno 1884 (T. F) [Tonini del Furia; Katinas et al. 2001]." Type: Not found (Katinas et al. 2001). ARGENTINA, Prov. Santa Cruz, dept. Lago Argentino, lago San Martín, estancia Cancha Rayada, *O. Boelcke et al. 16294* (neotype designated here: LP!; duplicate BAB!).

Leucheria ibari Phil. var. *glandulosa* Speg., Revista Fac. Agron. Univ. Nac. La Plata 3: 538. 1897. "Non rara in pratis editoribus secus Rio Gallegos et Rio Santa Cruz, anno 1882, C. S. [Carlos Spegazzini; Katinas et al. 2001] s.n." Type: ARGENTINA, Prov. Santa Cruz: S. Cruz, 1882, C. S. s.n. (lectotype designated here: LP s.n.!, LP000160 digital image!). Hab. [Habitat] S. Cruz, Feb 1882, C. S. s.n. (isolectotype: LP s.n.!, LP000159 digital image!).

Leucheria ibari Phil. var. *sessiliflora* Speg., Revista Fac. Agron. Univ. Nac. La Plata 3: 538. 1897, *syn. nov.* "Non rara in pratis editoribus secus Rio Gallegos et in Golfo de San Jorge, anno 1886 (C. A.) [Carlos Ameghino; Katinas et al. 2001]." Type: ARGENTINA, Prov. Santa Cruz: Hab. S. Jorge, Feb 1896, *C. Ameghino s.n.* (lectotype designated here: LP s.n.!, LP000158 digital image!).

Perennial herbs, caulescent, 4–60 cm high. Leaves oblong, oblanceolate, obovate, bi- or tripinnatisect, lobes partite, linear to elliptic, midvein cylindrical, glandular-pubescent in both faces, sometimes somewhat lanose abaxially; lower leaves rosulate,

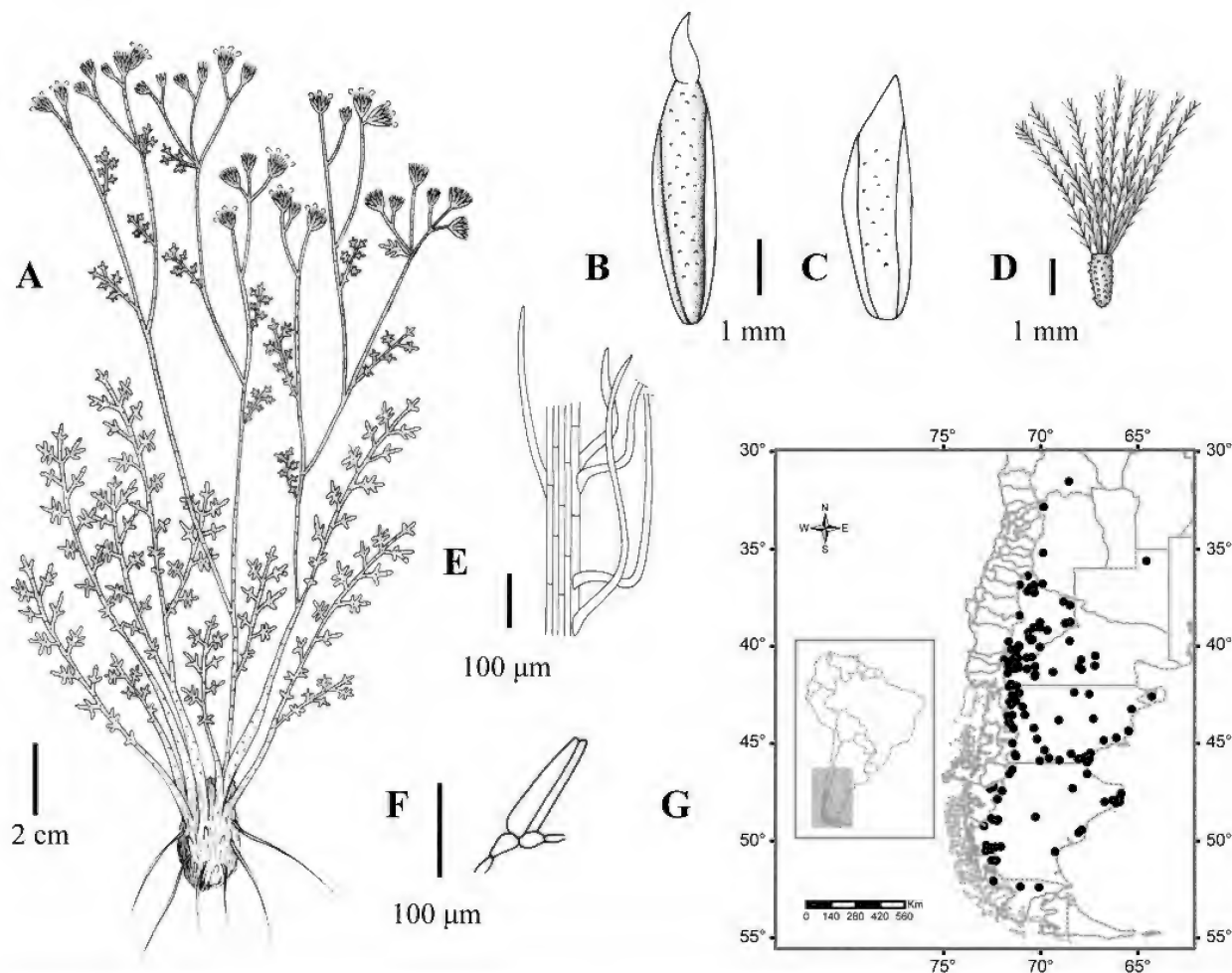


FIGURE 12. *Leucheria achillaeifolia* Hook. & Arn. A. Habit. B. Outer phyllary of the involucre. C. Inner phyllary of the involucre. D. Fruit and pappus. E. Detail of pappus bristle. F. Fruit twin trichome. G. Distribution map. A–C, *Cabrera 11282* (LP); D–F, *Cabrera & Job 358* (LP).

2.5–16 cm long, 0.3–1.2 cm wide, sometimes disposed in one or in more than one bundle by sprouting rhizome, petiole winged. Capitula 5–70, 1–4 capitula in the dwarf plants, grouped in lax corymbiform cymes. Involucres 5–8 mm high, 2-seriate, phyllaries subequal, margins scarios, glandular-pubescent, sometimes lanose, outer phyllaries usually concave, inner phyllaries planate; paleaceous phyllaries present. Florets 15–35, corolla white, pink. Cypselae slightly papillose, twin trichomes 110–125 µm long. Pappus 5–6 mm long, isomorphic, bristles wide and flat, long plumose, cilia ~550 µm long, white, sometimes yellowish at the apex.

DISTRIBUTION AND ECOLOGY. Chile, in Araucanía, Aysén, Magallanes y la Antártica Chilena, and Ñuble Regions, also cited for Maule region (Crisci 1976), and Argentina, in Chubut, Mendoza, Neuquén, Río Negro, San Juan, and Santa Cruz Provinces (Vitali and Katinas 2013) to the Strait of

Magellan; typical of the Patagonian steppe, on rocky and sandy soils, in slopes, along sea coasts, among shrubs, and also in open areas of *Nothofagus* Blume forests, from sea level to 2,200 masl.

PHENOLOGY. Collected in flower from November to March.

VERNACULAR NAMES. Unknown.

NOTES.

1. This species can easily be distinguished from the other species by the caulescent habit, bipinnatisect leaves, and numerous capitula.
2. The flowers are fragrant (Reiche 1905).

ADDITIONAL SPECIMENS EXAMINED. **ARGENTINA.**

PROVINCE CHUBUT: dept. Biedma, Puerto Pirámides, Dec 1900, *C. Burmeister 121* (BAB); dept. Cushamen, lago Puelo, 10 Dec 1940, *J. Neumeyer 407* (LP); Leleque, 15 Jan 1947, *A. Soriano*

2402 (BAB), 2404 (LP); Cholila, Jan 1900, *N. Illin* s.n. (BAB 1953); dept. Escalante, 14 km S of Comodoro Rivadavia, 2 Dec 1967, *M. Correa et al.* 4037 (BAB, LP); Cañadón Gatos, Pico Salamanca, without date, *E. Schiano* 14 (LP); Pico Salamanca, 21 Nov 1965, *E. de Kreibohm* 244 (LP); estancia Laurita, 18 Nov 1949, *A. Soriano* 3851 (BAB, LP); Comodoro Rivadavia, Jan 1924, without leg. [legit] (LPS 16990 in LP); 35 km N de Comodoro Rivadavia, 29 Nov 1967, *M. Correa et al.* 3991 (BAB); cañadón Casa de Piedra, 5 km E de Escalante, 28 Oct 1976, *M. Irisari & A. Beeskow* 312 (BAB); cañadón vertiente E Pampa del Castillo, 1 km antes del Trébol, without date, *J. Garrido & Martínez* 716 (BAB); dept. Florentino Ameghino, estancia Lochiel, 30 km al W de Camarones, 23 Oct 1946, *A. Soriano* 1971 (BAB, LP); 18 km S de Garayalde, Oct 1975, *J. Garrido & Martínez* 466 (BAB); dept. Futaleufú, cerro al S, 10 Nov 1949, *A. Soriano* 3783 (BAB, LP); 35 km E of Esquel, RP 25, 2.9 km SE of the junction of route 40 and 25, 4 Dec 1984, *T. Stuessy et al.* 6829 (LP); Corcovado, 20–25 Oct 1901, without leg. (LP 75331); Corcovado, río Senguerr, Jan 1902, *R. Hauthal* s.n. (LP); a ± 35 km de Esquel, sobre ruta 40, 5 Jan 1969, *A. Ruiz Leal* 26635 (LP); lago Futalaufquen, 11 Dec 1936, *R. Lahitte* 469 (BAB), Feb 1949, *E. Grondona* 2366 (BAB); El Chapel (Súnica), Feb 1937, *R. Lahitte* 455 (LP), *R. Lahitte* s.n. (BAB 52270); dept. Languiño, Quichaura, 7 Jan 1948, *A. Krapovickas* 3904, 3915 (LP); Carrenleufú, 1 Mar 1900, *N. Illin* s.n. (LP); dept. Mártires, Las Plumas, Dec 1979, *González et al.* 7652 (BAB); dept. Paso de Indios, 50 km de los Altares, 9 Nov 1972, *M. Correa et al.* 4848 (BAB, LP); Aguada Las Cortaderas, camino a Gema, without leg. (LP 6048); dept. Rawson, Trelew, without date, *Valentin* s.n. (LP); ±20 km camino a Cabo Raso, 12 Nov 1972, *M. Correa et al.* 4896 (BAB, LP); Trelew, Tekachoiq, Dec 1899, *N. Illin* s.n. (BAB 1929); dept. Río Senguerr, Río Senguerr, *R. Hauthal* s.n. (LPS 1889 in LP); lago Fontana, 3 Feb 1949, *E. Grondona* 2318 (LP), 28 Feb 1896, *J. Koslowsky* s.n. (LP 6052, 6053); Río Mayo, 9 Jan 1976, *M. Irisari & M. Bertiller* 310 (BAB); 3 km al NE de Alto Río Mayo, without date, *E. Medrano & J. Garrido* 7774 (BAB); ruta 272, a 110 km W de Río Mayo, 6 Dec 1976, *S. Arroyo et al.* 320 (BAB); río Aysen, Dec 1900, *C. Burmeister* s.n. (BAB 2111); dept. Sarmiento, sierra de San Bernardo, 24 Jan 1973, *A. Cabrera et al.* 23230 (LP); lago Musters, 4 Dec 1967, *M. Correa et al.* 4107 (BAB, LP); SE de Pico Oneto, 22 Oct 1976, *I. Jackson* 311 (BAB); Colonia Sarmiento, 24 Dec 1902, *J. Koslowsky* s.n. (BAB 12349); dept. Tehuelches, 55 km N of José de San Martín, on route 19, 8 Dec 1984, *T. Stuessy et al.* 6912 (LP); Río Pico, without date, *S. Roth* s.n. (LP 6042); ruta 19, a 21 km NE de Gobernador Costa, 8 Dec 1976, *S. Arroyo et al.* 386 (BAB); dept. Telsen, entre Gan Gan y Talapaga, 31 Dec 1967, *A. Ruiz Leal* 25755 (LP); a 10 km de Telsen hacia Gan Gan, 25 Nov 1967, *M. Correa et al.* 3906 (BAB, LP); bajada a estancia Santa Teresita, desde meseta El Moro, 28 Nov 1979, *A. Beeskow & M. Irisari* 908, 968 (BAB). Without department: Travesía Kel-lá, Dec 1900, *C. Burmeister* s.n. (BAB 2118); meseta cerca de Pablo Ledesma al S, May 1903, *C. Spegazzini* s.n. (BAB 10260). Without locality: 1889, *N. Illin* s.n. (LP); 1889, *C. Moyano* s.n. (LP);

travesía del Chubut, Dec 1903, *N. Illin* 96 (BAB); cordillera, Apr 1901, *C. Burmeister* 213 (BAB). PROVINCE LA PAMPA: dept. Rancul, Calefú, 21 Jan 1966, *U. Eskuche* 02-8 (LP). PROVINCE MENDOZA: dept. Las Heras, Portezuelo del Viento, 29 Nov 1944, *A. Ruiz Leal* 9752 (LP); dept. Malargüe, Cerros al norte de Calmuco, 16 Feb 1942, *G. Covas* 428 (LP), *A. Burkart et al.* 14414 (LP); Salado valley, Laguna de la Niña Encantada, 23 Dec 1965, *J. Hjerting & K. Rhan* 3111 (LP); Malalhue, mina San Martín, 28 Nov 1944, *A. Ruiz Leal* 9696 (LP). PROVINCE NEUQUÉN: dept. Añelo, sierra Auca Mahuida, Nov 1953, *H. Fabris* 914 (LP); dept. Catán Lil, near Catán Lil, 13 Dec 1995, *T. Böcher et al.* 1647 (LP); Las Coloradas, estancia Bernal, 1 km al S de la estancia, 18 Jan 1964, *R. Pérez Moreau & V. M.* 3516 (BAB); dept. Confluencia, Confluencia, 20 Dec 1964, *S. Schajovskoy* 41 (LP); dept. Chos Malal, between Chos Malal and Tricao Malal, 11 Dec 1955, *T. Böcher et al.* 1578 (LP); dept. Chos Malal, vegas de Pelán a Riscos Bayos, 24 Jan 1964, *O. Boelcke et al.* 1165 (BAB); dept. Huiliches, lago Huechulafquen, 15–17 Dec 1952, *A. Cabrera* 11282, 22979 (LP); near Junín de los Andes, 18 Dec 1955, *T. Böcher et al.* 1851 (LP); Paso Córdoba, 18 Dec 1985, *M. Correa et al.* 9424 (BAB); Junín de los Andes, 200 m de la ruta nacional 234 en dirección a lago Lolog, 8 Dec 1997, *R. Fortunato et al.* 5729 (BAB); dept. Lácar, lago Lácar, 1896, *S. Roth* s.n. (LP 6055); San Martín de los Andes, 11 Dec 1952, *A. Cabrera* 11188 (LP), 10 Dec 1954, *S. Schajovskoy* 52 (LP), *J. Rasp* 120 (LP); Paso Córdoba, 22 Jan 1971, *A. Cabrera* 21215 (CONC, LP pro parte); Paso Córdoba, camino entre San Martín de los Andes y Bariloche, 29 Dec 1977, *M. Gentili* 685 (LP); Alicurá, Dec 1979, *E. González* 208 (LP); San Martín de los Andes, Feb 1938, *A. Rasp* 10 (LP); San Martín de los Andes, valle de Trompul, 26 Jan 1974, *M. Gentili* 235 (LP); ~15 km E de San Martín de los Andes, 4 Dec 1980, *M. Correa et al.* 7818 (BAB); tramo superior cuesta La Rinconada – ruta nacional 40, 23 Mar 1984, *M. Gentili & P. Gentili* 995 (BAB); dept. Los Lagos, lago Nahuel Huapi, 1 Dec 1897, *S. Roth* s.n. (LP 75225, LP 6050); lago Nahuel Huapi, Isla Victoria, 9 Jan 1935, *A. Cabrera & M. Job* 163 (LP), 3 Jan 1939, *A. Rasp* 119 (LP), 13 Feb 1948, *A. Corte* 139 (LP); Isla Victoria, Playa de Toro, Puerto Anchorena, 8 Jan 1936, *G. Grüner* 135 (LP); Parque Nacional Nahuel Huapi, lago Traful, 7 Nov 1949, *O. Boelcke & J. Hunziker* 3631 (BAB), id. [ibidem], Fortín Chacabuco, cerro del Indio, 7 Feb 1952, *O. Boelcke & M. Correa* 6310 (BAB), id., cerca del casco de la estancia, 9 Dec 1950, *O. Boelcke* 4433 (BAB); dept. Minas, Andacollo, arroyo Guaraco, 9 Dec 1952, *A. Cabrera* 11161 (LP); camino Las Ovejas a laguna Epu-laufquen, próximo arroyo Pincheira, 18 Jan 1964, *O. Boelcke et al.* 11005 (BAB, LP); cordillera del Viento, 12 Jan 1973, *A. Cabrera* 22859 (LP); cordillera del Viento, a 10 km de Huinganco, *M. Bonifacino et al.* 150 (LP); vegas del Pelán a Riscos Bayos, 24 Jan 1964, *O. Boelcke et al.* 11165 (LP); dept. Pehuenches, Rincón Grande, Jan 1942, *D. de Jones* 53 (LP); dept. Zapala, Laguna Blanca, 1 Dec 1965, *A. Ruiz Leal* 23883 (LP), 20 Dec 1963, *J. Navas* 4 (LP); 10 km al S de La Negra, 14 Dec 1961, *R. Pérez Moreau & B. Piccinini* 3277 (BAB, CONC); 7 km al S de Zapala, por la ruta 40, 12 Dec 1961,

R. Pérez Moreau & B. Piccinini 3238 (BAB); bajada del Manzano, ~20 km al S de Zapala, ruta 40, 19 Nov 1969, E. Ancibor et al. s.n. (BAB 90249). Without locality: 1 June 1900, O. Asp 25 (BAB); without leg. (LP 60444, LP 6046). PROVINCE RÍO NEGRO: dept. Bariloche, cerro Runge, 14 Jan 1946, Montiel 578, A. Burkart 6466 (LP); Nahuel Huapi, Jan 1898, without leg (LP); alrededores del lago Nahuel Huapi, 1896, S. Roth s.n. (LP 6054); Nahuel Huapi, cerro Otto, 6 Jan 1935, A. Cabrera & M. Job 72 (LP), 7 Jan 1946, O. Boelcke 1755 (LP), 10 Feb 1934, A. Burkart 6466 (LP); camino a Ñirihuau, 16 Jan 1935, A. Cabrera & M. Job 358 (LP), M. Bonifacio et al. 273 (LP); Bariloche, 7 Jan 1940, J. Neumeyer 11 (LP); Bariloche, cerca lago Nahuel Huapi, 10 Feb 1934, L. Parodi 11851 (LP); lago Nahuel Huapi, península Totorá, 24 Dec 1942, C. Millaqueo 34 (LP); El Portezuelo, a 25 km de El Maitén, sobre ruta 40, 10 Jan 1970, A. Ruiz Leal 26868 (LP); Bolsón, Jan 1900, N. Illin s.n. (BAB 1974); 30 km al E de Los Repollos, camino al Maitén, 31 Dec 1947, A. Krapovickas 3781 (BAB); península San Pedro, 1 Jan 1952, J. Diem 1969 (BAB); dept. El Cuy, camino de Neuquén a cerro Policía, 79 km al S de la balsa, 13 Nov 1967, A. Cabrera 18671 (LP); dept. Nueve de Julio, El Rincón, laguna Raimunda, 19 Dec 1967, A. Ruiz Leal 25538 (LP); dept. Pilcaniyeu, Comallo, 7 Dec 1938, A. Cabrera 4826 (LP); Paso Limay, 8 Nov 1967, M. Gentili 5, 7 (LP); La Carpa, 15 Nov 1963, M. Gentili 6 (LP); dept. Valcheta, 16 km S de establecimiento El Rincón (Chipanquill), 22 Nov 1975, M. Correa et al. 6236 (BAB); Somuncurá, camino laguna Raimunda – laguna Paraguay, 23 Nov 1975, M. Correa et al. 6285 (BAB), id., laguna Raimunda, 23 Nov 1975, M. Correa et al. 6252, 6253 (BAB), id., 16 km N de laguna Raimunda, 26 Nov 1975, M. Correa et al. 6358 (BAB), id., Sierra Corona, 24 Nov 1975, M. Correa et al. 6339 (BAB); dept. Veinticinco de Mayo, al SW del Anecón Grande, 28 Dec 1938, E. Ferruglio 65 (LP); ~80 km al W de Jacobacci, ruta 244, 23 Nov 1967, M. Correa et al. 3844 (BAB). Without locality: 5 Mar 1907, A. Huber s.n. (BAB 21018). PROVINCE SAN JUAN: dept. Capital: San Juan, 25 Feb 1914, M. Efron s.n. (LP 6051); dept. Iglesia: Río Blanco, without leg. 29 (LP). PROVINCE SANTA CRUZ: dept. Corpen Aike, Cañadón de las Vacas, without date, Beaufol s.n. (LP 6045); dept. Deseado, Médanos Negros, 17 Nov 1965, M. Correa & E. Nicora 3463 (BAB, LP); Cañadón Seco, 13 Nov 1969, A. Guerrero 20 (LP); Puerto Deseado, Jan 1898, C. Ameghino s.n. (LP); Puerto Deseado, entre estancia El Chara y camino a Tellier, 13 Nov 1965, M. Correa & E. Nicora 3359 (BAB, LP); Puerto Deseado, laguna y cañadón del Veneciano, Nov–Dec 1901, C. Burmeister s.n. (BAB 4160); cerca de Río Deseado, 16 Nov 1965, M. Correa & E. Nicora 3437 (BAB); 12 km de Deseado, camino a Cabo Blanco, 19 Nov 1963, M. Correa et al. 2610 (BAB); cañadón León, 27 Nov 1940, R. Spegazzini 8 (BAB); Isla Quinta, 17 Nov 1963, M. Correa et al. 2553 (BAB); Tres Cerros, estancia La Lomita, 14 Dec 1973, M. Correa et al. 6712 (BAB); dept. Lago Argentino, Lago Argentino, Jan 1902, R. Hauthal s.n. (LP), 11 Jan 1941, R. Spegazzini 389, 480 (BAB), id., curso superior río Santa Cruz, without date, without leg. 8847 (LP); Parque Nacional Los Glaciares, lago Roca, 16 Jan 1999, C. Guerrero et al. 79 (LP);

entre estancia Anita y Calafate, 1 Jan 1969, A. Ruiz Leal 26536 (LP); estancia La Federica, lago San Martín, 29 Feb 1935, M. Birabén & M. Birabén 191 (LP); El Calafate, orilla SW de laguna formada por el lago, 9 Dec 1963, M. Correa et al. 3090 (BAB); lago San Martín, estancia La Federica, 23 Jan 1967, O. Boelcke et al. 12702 (BAB); río Santa Cruz, Jan 1902, R. Hauthal s.n. (BAB 8847), id., 1903/1904, C. Burmeister s.n. (BAB 11841); dept. Lago Buenos Aires, camino a Los Antiguos, 23 Nov 1965, M. Correa & E. Nicora 3617 (BAB, LP); estancia John Munro, camino lago Buenos Aires al valle de las Pinturas, 15 Feb 1936, M. Birabén & M. Birabén 74 (LP); dept. Magallanes, ruta 3, 15 km al S de Puerto San Julián, 25 Nov 1976, A. Ruiz Leal 28586 (BAB); dept. Río Chico, valle del río Chico, 8 Mar 1900, C. Spegazzini s.n. (BAB 2152); lago Pueyrredón, cañadón del río Oro, 27 Jan 1967, O. Boelcke et al. 12864 (BAB); lago Belgrano, estancia El Rincón, 20 Dec 1940, R. Spegazzini 108 (BAB). Without locality: without date, A. Cardoso s.n. (LP); Oct 1897, without leg. (LP). PROVINCE UNKNOWN: Patagonia, without date, S. Roth s.n. (LP 6047); Patagonia occidental, without date, P. M. s.n. (LP 6049); Patagonia, 1904, Tesleff s.n. (BAB 5877).

CHILE. REGION ARAUCANÍA: Prov. Malleco: Liucura-Lonquimay, 8 Jan 1948, A. Pfister s.n. (CONC 8030, LP). REGION AYSÉN: Prov. Aysén: Chile Chico, 12 Dec 1954, A. Pfister s.n. (CONC 18468). Prov. Capitán Prat: río Baker, Angostura Tamango, Jan 2007, E. Teneb 248 (CONC); Los Ñadis, sector Los Mellizos, Jan 2007, A. Jiménez 189 (CONC). REGION MAGALLANES Y LA ANTÁRTICA CHILENA: Prov. Magallanes: without locality, Jan 1878, E. Ibar 2234 (LP). Prov. Última Esperanza: estancia cerro Castillo, 30 km N Rincón Negro 5, 16 Dec 1975, TBPA 633 (BAB, CONC), Mar 1972, E. Pisano V. 3614 (CONC); Parque Nacional Torres del Paine, al S de laguna Flamencos, Nov 2001, Domínguez 470 (CONC). REGION ÑUBLE: Prov. Punilla – Diguillín: región andina, Feb 1936, Puentes s.n. (CONC 75574).

2. *Leucheria amoena* Phil., Linnaea 28: 714. 1856. “In Andibus dep. Linares inventi orn. Germain.” *Lasiorbiza amoena* (Phil.) Kuntze, Revis. Gen. Pl. 1: 350. 1891, **syn. nov.** Type: CHILE, Prov. Linares: Cordillera de Linares, Jan 1857, P. Germain s.n. (holotype: SGO 60495!, photograph LP!; isotype: LP 75397!, LP002127 digital image!). Figure 13.

Perennial herbs, caulescent, 50–100 cm high. Leaves obovate, pinnatisect, with the apical lobe larger than the lateral ones, lobes entire, triangular, midvein cylindrical, glabrous or strigose adaxially, and tomentose or araneose abaxially; lower leaves rosulate, 7–15 cm long, 2–2.5 cm wide, petiole winged. Capitula usually more than 20, grouped in dense cymes forming a lax paniculiform synflorescence. Involucres 5–6 mm high, 3-seriate, outer phyllaries shorter, concave, apex and margins scarious, lanose especially at the base, medium phyllaries similar to the outer ones but longer, inner phyllaries scarious, glabrous; paleaceous phyllaries present. Florets 15–24, corolla blue, lilac. Cypselae pilose, twin trichomes ~150 µm long. Pappus 3–5 mm long, isomorphic, bristles thin and cylindrical, scabrid to barbelate, cilia 150–175 µm long, white.

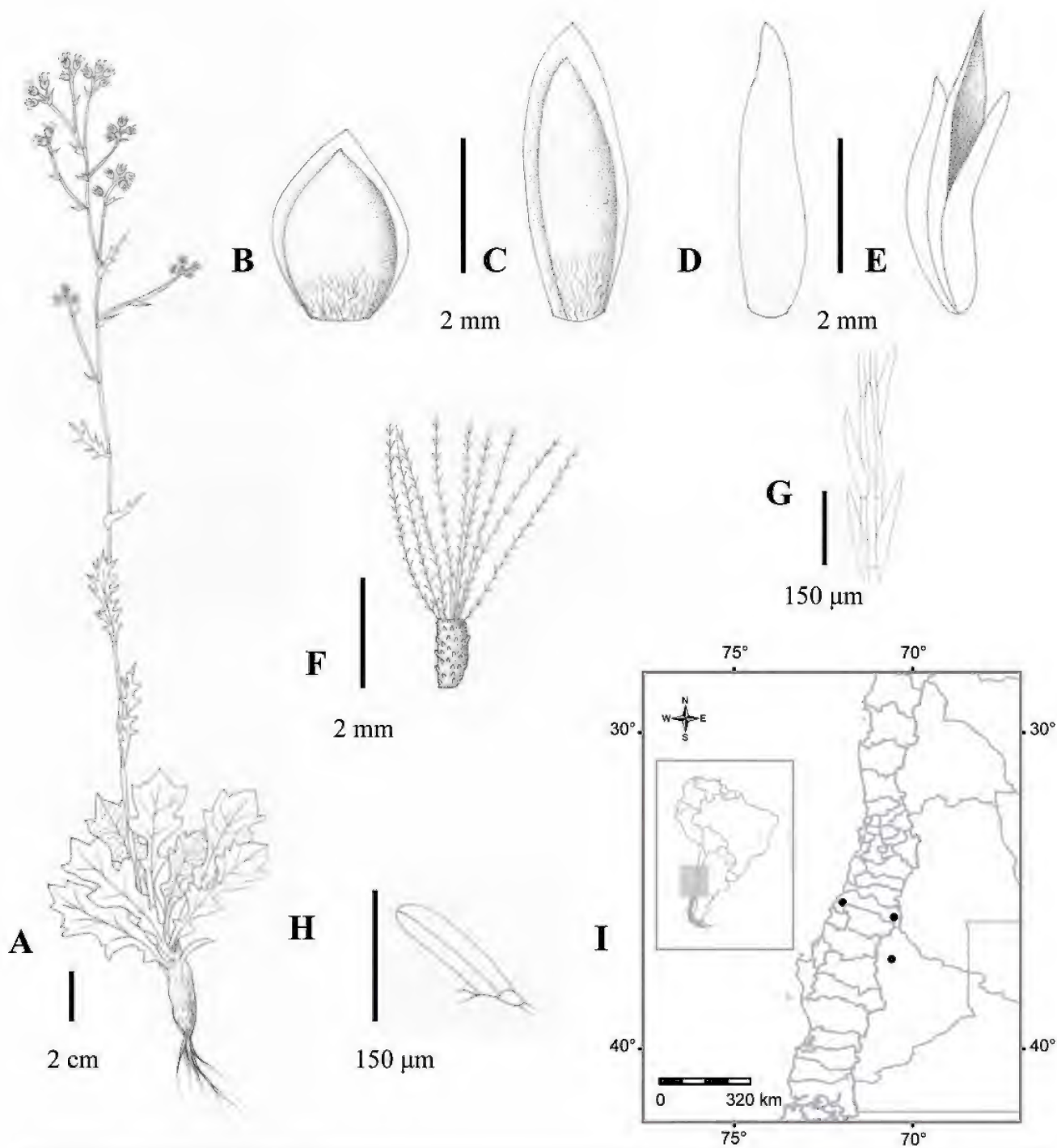


FIGURE 13. *Leucheria amoena* Phil. A. Habit. B. Outer phyllary of the involucre. C. Middle phyllary of the involucre. D. Inner phyllary of the involucre. E. Detail of the phyllary arrangement, showing the place of location of one floret between the middle and inner phyllaries. F. Fruit and pappus. G. Detail of pappus bristle. H. Fruit twin trichome. I. Distribution map. A–E, G, H, *Cabrera 11152* (LP); F, *Zöllner 4573* (LP).

DISTRIBUTION AND ECOLOGY. Southern Chile, in the O'Higgins Region (Ríos et al. 2018) and Maule Region, and Argentina, in the Neuquén Province, up to 2,000 masl.

PHENOLOGY. Collected in flower from October to January.

VERNACULAR NAMES. Unknown.

NOTE. *Leucheria amoena* resembles *L. gayana* (J. Rémy) Reiche, but *L. amoena* has densely lanose phyllaries of the involucre, whereas in *L. gayana* the phyllaries are sparsely lanose and are covered by glandular trichomes.

ADDITIONAL SPECIMENS EXAMINED. **ARGENTINA.** PROVINCE NEUQUÉN: dept. Minas, Andacollo, arroyo Guaraco, 9 Dec 1952, A. Cabrera 11152 (LP).

CHILE. REGION MAULE: Prov. Talca: camino a Laguna del Maule, Dec 1970, O. Zöllner 4573 (LP); Reserva nacional Los Ruiles de Empedrado, Dec 1999, Finot & López 1381 (CONC).

3. *Leucheria apiifolia* Phil., Anales Univ. Chile 87: 111. 1894.

CHILE, Prov. Curicó: "Habitat in Andibus provinciae Curicó. Manuel Vidal." Type: Without locality, Vidal s.n. (holotype: SGO 60492!, photograph LP!). Figure 14.

Perennial herbs, caulescent, 30–50 cm high. Leaves obovate, oblanceolate, slightly dentate, pinnatilobate, pinnatifid or pinnatisect, lobes entire, dentate, triangular to oblong, midvein wide, planate, glabrous, glandular-pubescent or glandular-pubescent and strigose adaxially, slightly strigose or sometimes araneose-pubescent abaxially; lower leaves rosulate or subrosulate, 5–17 cm long, 0.7–2.5 cm wide, petiole winged. Capitula 3–20, grouped in lax cymes forming a lax paniculiform synflorescence, sometimes forming corymbiform synflorescence when only 2 or 3 capitula. Involucres 5–10(–11) mm high, 2- or 3-seriate, phyllaries concave, outer phyllaries shorter, sometimes planate, glandular-pubescent, sometimes apex purplish, intermediate and inner phyllaries with apex and margins scarious, glabrous; paleaceous phyllaries present. Florets 25–50, corolla white, blue, lilac. Cypselae pilose, twin trichomes 150–225 µm long, glandular biseriate trichomes. Pappus 4–5 mm long, isomorphic, bristles thin and cylindrical, plumose, cilia ~350 µm long, white.

DISTRIBUTION AND ECOLOGY. Endemic to the Curicó Province, Maule Region, Chile, in the Andes close to laguna de Teno, at about 2,500 masl.

PHENOLOGY. Collected in flower from December to March.

VERNACULAR NAMES. Unknown.

NOTES.

1. The type of *Leucheria apiifolia* deposited in SGO (60492) is a fragment of a plant with three capitula. Philippi (1894) described this species as having two or three capitula, but he explained that he had only branches of the plant at the time he performed the species description. However, the analysis of more specimens of *L. apiifolia* shows that the number of capitula of the synflorescence can reach ~20.

2. *Leucheria apiifolia* is distinctive because of its glandular-pubescent leaves, with a planate midvein, conspicuous upper leaves, and the lack of lanose pubescence in all the vegetative organs. It resembles *L. glacialis* (see Notes for *L. glacialis*), with both species coexisting in Curicó Province, Chile, but *L. apiifolia* has peduncles and phyllaries that are very glandular-pubescent (vs. glandular-pubescent and lanose in *L. glacialis*), glabrous or glandular-pubescent leaves (vs. araneose- or lanose-pubescent), and a short pappus that is 4–5 mm long (vs. 7–10 mm long). Other glandular-pubescent species are *L. cantillanensis* and *L. graui*, but the former has leaves with a cylindrical midvein, and the latter has yellow corollas and papillose cypselae.

ADDITIONAL SPECIMENS EXAMINED. **CHILE.**

REGION MAULE: Prov. Curicó: dept. Curicó, a orillas de la Laguna de Teno, 10 Mar 1967, C. Marticorena & O. Matthei 892 (CONC, LP), Feb 1967, F. Behn s.n. (LP), 27 Jan 1971, M. Mahu 5629 (LP), 9 Mar 1967, C. Marticorena & O. Matthei 863 (LP).

4. *Leucheria bridgesii* Hook. & Arn., Companion Bot. Mag. 1: 36. 1835. "Cordillera. Bridges (n. 486)." Type: CHILE: Cordillera of Chili [sic], Bridges 486 (holotype: E00249330 digital image!, photograph LP!; isotypes: K00504365, K00504366 digital images!, photographs LP!). Figure 15.

Chabrea pulchella Phil., Anales Univ. Chile 41: 744. 1872, non *Leucheria pulchella* D. Don, 1830 (= *Leucheria tomentosa* (Less.) Crisci). "Se halla en el valle del Yeso, de la provincia de Santiago." *Lasiorbiza pulchella* (Phil.) Kuntze, Revis. Gen. Pl. 1: 350. 1891, *hom. illeg.*, non *Lasiorbiza pulchella* (D. Don) Steud., 1841 (= *L. tomentosa* (Less.) Crisci). *Leucheria microcephala* Reiche, Fl. Chile 4: 429. 1905, *nom. nov. pro Chabrea pulchella* Phil. Type: CHILE, Prov. Santiago: Valle del Yeso, R. Philippi 1137 (lectotype designated by Crisci [1976:120]: SGO 60517!; isoelectotype: LP 75267!). Valle del Yeso, without leg. (isoelectotype: K000504361 digital image!). Valle del Yeso, January 1868, R. Philippi s.n. (isoelectotype: B [destroyed] photograph F 16057!).

Perennial herbs, caulescent, up to 150 cm high. Leaves oblanceolate, dentate, pinnatifid or pinnatisect, lobes entire, triangular, midvein cylindrical, slightly tomentose adaxially, tomentose, lanose abaxially; lower leaves rosulate, 5–18 cm long, 0.8–2 cm wide, disposed in one bundle and numerous to absent or disposed in more than one bundle by sprouting rhizome and very numerous, petiole winged. Capitula 7–40, grouped in dense or lax cymes forming a lax paniculiform synflorescence. Involucres (5–)6(–7) mm high, 2-seriate, phyllaries concave, glandular-pubescent, occasionally strigose or araneose, outer phyllaries shorter; paleaceous phyllaries present. Florets 14–20, corolla white, pink, occasionally light blue. Cypselae pilose, twin trichomes 120–150 µm long, scarce glandular biseriate trichomes. Pappus 4–4.5 mm long, isomorphic, bristles thin and cylindrical, scabrid to barbellate, cilia 150–175 µm long, white.

DISTRIBUTION AND ECOLOGY. It grows in the Andes of Chile, in Coquimbo, Metropolitana de Santiago, and Valparaíso Regions, also cited for the O'Higgins Region (Crisci 1976),

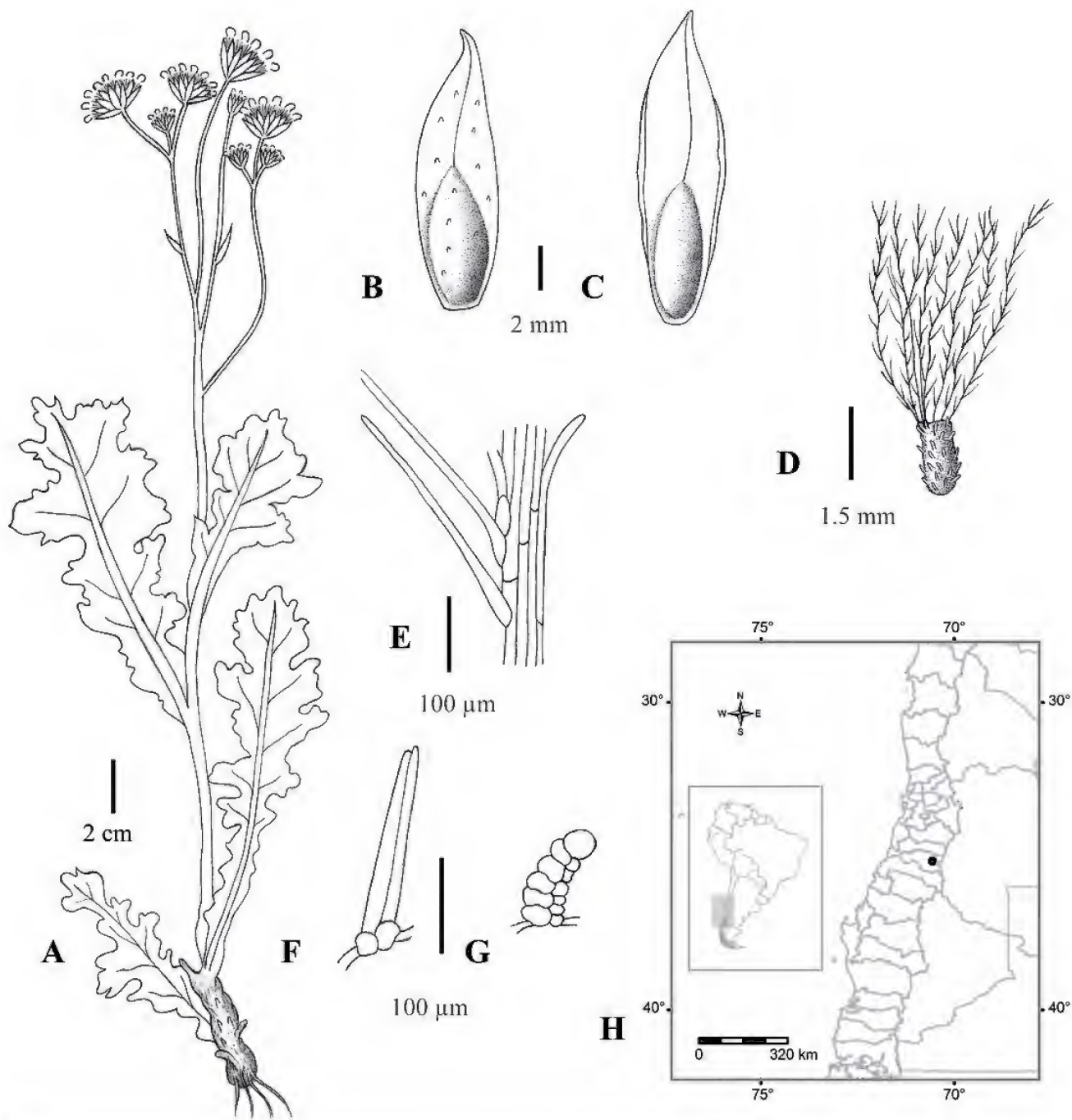


FIGURE 14. *Leucheria apiifolia* Phil. A. Habit. B. Outer phyllary of the involucre. C. Inner phyllary of the involucre. D. Fruit and pappus. E. Detail of pappus bristle. F. Fruit twin trichome. G. Fruit glandular biseriate trichome. H. Distribution map. A–G, Marticorena & Matthei 892 (LP).

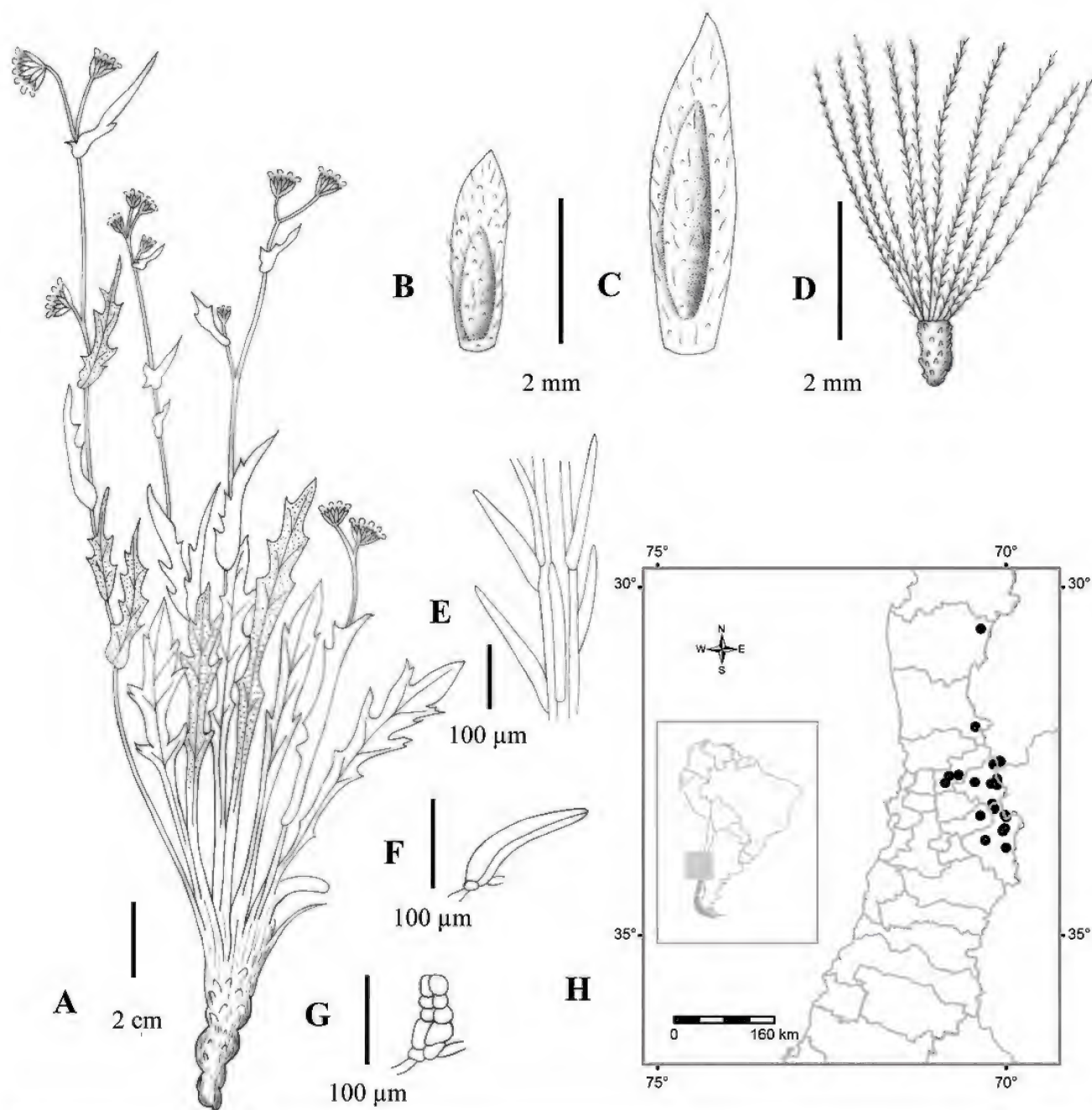


FIGURE 15. *Leucheria bridgesii* Hook. & Arn. A. Habit. B. Outer phyllary of the involucre. C. Inner phyllary of the involucre. D. Fruit and pappus. E. Detail of pappus bristle. F. Fruit twin trichome. G. Fruit glandular biseriate trichome. H. Distribution map. A, *Ricardi et al.* 830 (LP); B, C, *Palacios & Barkley* 20Mz321 (LP); D–G, *Marticorena & Matthei* 644 (LP).

and in Argentina, in Mendoza Province. It is found among rocks and shrubs, from 1,000 to 4,000 masl.

PHENOLOGY. Collected in flower from November to April.

VERNACULAR NAMES. Unknown.

NOTES.

1. This species is here first reported for Argentina, although Crisci (1976) had hinted about *L. bridgesii*'s probable occurrence. In Mendoza, *L. bridgesii* shares the habitat with *L. runcinata*, another species with partite leaves, but *L. runcinata* has wider lower leaves (3–7 cm vs. 0.8–2 cm wide in *L. bridgesii*), commonly divaricate branches (vs. erect), and 25–55 florets per capitula (vs. 14–20).
2. It also resembles *L. hieracioides* (see Notes for *L. hieracioides*).

ADDITIONAL SPECIMENS EXAMINED. **ARGENTINA.**

PROVINCE MENDOZA: dept. Las Heras, Quebrada de Santa María, 24 Jan 1950, M. Palacios & F. Barkley 20Mz321 (LP); dept. Malargüe, alto valle del Atuel, 10–12 km del establecimiento de la mina de azufre del volcán Overo (Sominar), 9–17 Jan 1954, A. Ruiz Leal & F. Roig 15757 (LP).

CHILE. REGION COQUIMBO: Prov. Choapa: 4 km antes de Almendrillo, Jan 1964, C. Marticorena & O. Matthei 533 (CONC). Prov. Limarí: río Molles, Feb 1962, Jiles 4124 (CONC). **REGION METROPOLITANA DE SANTIAGO:** Prov. Cordillera: cajón del Morales, Jan 1991, S. Teillier & González 2407 (CONC); cajón de Morales, sector Panimavidas, Jan 2002, S. Teillier & Márquez 5307 (CONC); cajón del Colorado, El Alfalfal, Jan 2000, S. Teillier 7960 (CONC). Prov. Santiago: Pérez Caldera, 17 Jan 1964, C. Marticorena & O. Matthei 644 (CONC, LP), 27 Jan 1954, Sparre 10603 (CONC); entre Pérez Caldera y Maitenes, Dec 1954, C. Skottsberg & Sparre 11077 (CONC); cordillera de Santiago, Laguna Negra, Mar 1873, F. Vidal G. 1133 (LP); cajón del Maipo, Dec 1970, E. Weltdt 695 (CONC); cajón del río Maipo, laguna La Encañada, 22 Jan 1971, M. Mahu 5576 (LP); cajón del Maipo, quebrada La Morada, Jan 1991, Rutschatz 6790, 6804 (CONC); camino de Santiago a mina La Disputada, 2 km antes de Pérez Caldera, 17 Jan 1964, C. Marticorena & O. Matthei 656 (CONC, LP); río Yeso, lago Negro, 13 Jan 1945, W. Biese 971 (BAB); Piuquencillos, valle del río Colorado, 8–10 Dec 1942, E. Pisano V. et al. 1627 (LP); entre Lo Valdez y Las Yeseras, 11 Feb 1963, M. Ricardi et al. 830 (LP); Fierro Carrera, Jan 1930, G. Montero O. 1040 (CONC); Santuario de la Naturaleza Yerba Loca, cajón estero La Leonera, Feb 2000, M. Kalin et al. 20-1409 (CONC), id., sector vega Las Vacas, Feb 1999, M. Kalin & A. Humaña 99-1190 (CONC), id., estero Yerba Loca, Feb 2000, Márquez 37 (CONC). **REGION VALPARAISO:** Prov. Los Andes: bajada de Potrero Escondido, 23 Feb 1947, O. Boelcke 2598 (LP); laguna del Inca, 12 Jan 1981, M. Kalin Arroyo 81-269 (CONC); laguna del Inca, lado oeste, Feb 2004, J. Panero & B. Crozier 8450 (CONC). Prov. Quillota: cerro La Campana, 13 Dec 1970, O. Zöllner 4833 (LP). Prov. San Felipe de Aconcagua: Portillo, 6 Mar 1954, M. Ricardi 2877 (CONC, LP),

Jan 1970, J. Crisci 503 (LP); Estación Portillo, FC Transandino, 14–16 Apr 1933, G. Looser 3683 (LP); camino internacional a Portillo, 15 Nov 1970, C. Marticorena & E. Weltdt 544 (CONC, LP); cerro Tres Hermanos, lado N de la Laguna del Inca, 14 Jan 1970, J. Crisci 480 (LP); laguna El Toro, Dec 1970, O. Zöllner 4571 (LP); cerro Mocoen, 15 Nov 1970, O. Zöllner 4452 (LP).

5. *Leucheria candidissima* D. Don, Philos. Mag. Ann. Chem. 11: 389. 1832. [Argentina, Mendoza–Chile, Curicó; at that time the borders between the countries were unclear.] “Both flanks of the Chilean Andes, between 32°–35°, Herb. Gillies.” *Chabraea candidissima* (D. Don) DC., Prodr. 7: 59. 1838. *Lasiorrhiza candidissima* (D. Don) Kuntze, Revis. Gen. Pl. 1: 350. 1891. *Lasiorrhiza candidissima* (D. Don) Macloskie, Rep. Princeton Univ. Exp. Patagonia, Botany 8(2): 888. 1906, *comb. superfl.* Type: CHILE, Prov. Curicó: Andes of Chile, Valle de los Ciegos, J. Gillies s.n. (lectotype designated here: K000504407 digital image!). Chile, without locality, J. Gillies s.n. (isoelectotypes: GH!, GH0009682, K000504409 digital images!). ARGENTINA, Prov. Mendoza: El Valle de los Ciegos, J. Gillies s.n. (isoelectotype: BM000947919 digital image!). Mendoza, J. Gillies s.n. (isoelectotypes: BM000947921, E00249342 digital images!). Figure 16.

Leuceria laciniata Hook. & Arn., Companion Bot. Mag. 1: 36. 1835, non *Chabraea laciniata* Wedd., 1844 (= *Leucheria daucifolia* (D. Don) Crisci). CHILE: “Chili, Bridges: in Dr. Hooker’s herbarium only as far as we know.” Type: Not found. CHILE, Prov. Talca: Laguna del Maule, Jan 1961, Schlegel 3544 (neotype designated here: CONC 40141!).

Leuceria candidissima D. Don fo. *subintegra* Skottsbb., Kongl. Svenska Vetensk. Acad. Handl., n.s., 56(5): 332. 1916. “N: r 841.” “Andines Patagonien: Hochgebirge s.vom Lago Buenos Aires, trockene Hochpampa am Rio Zeballos (Bl. 15. 12. 08); Abhänge w. vom Fluss, c. 1,200 m (Bl. 16. 12. 08). Näliert sich *L. lanata*. Verbr. Der Art: Cordill. Des mittl. Chile und Argent.; And. Patag.” Type: ARGENTINA, Prov. Santa Cruz: Patagonien, Rio Zeballo, Lago Buenos Aires, 15 Dec 1908, C. Skottsberg 841 (holotype: S16-58689).

Perennial herbs, scapose, 2–11 cm high. Leaves linear, oblong, oblanceolate, pinnatifid or pinnatisect, lobes entire, linear, midvein cylindrical, lanose in both faces; lower leaves rosulate, 1.5–7 cm long, 0.4–1 cm wide, numerous, disposed in one or more than one bundle by sprouting rhizome, petiole winged. Capitula solitary, usually 1–4 capitula per plant. Involucre 7–9 mm high, 2-seriate, phyllaries subequal, concave, glandular-pubescent, outer phyllaries sometimes also lanose; paleaceous phyllaries present. Florets 30–40, corolla white, pink. Cypselae pilose, twin trichomes 200–225 µm long, scarce glandular biseriate trichomes. Pappus 4–6 mm long, isomorphic, bristles wide and flat, plumose, cilia ~270 µm long, white.

DISTRIBUTION AND ECOLOGY. Chile, in Maule and Metropolitana de Santiago Regions, but also cited for Valparaíso Region (Moreira Muñoz et al. 2012) and Biobío Region (Reiche 1905), and Argentina, in Chubut, Mendoza, Neuquén, and

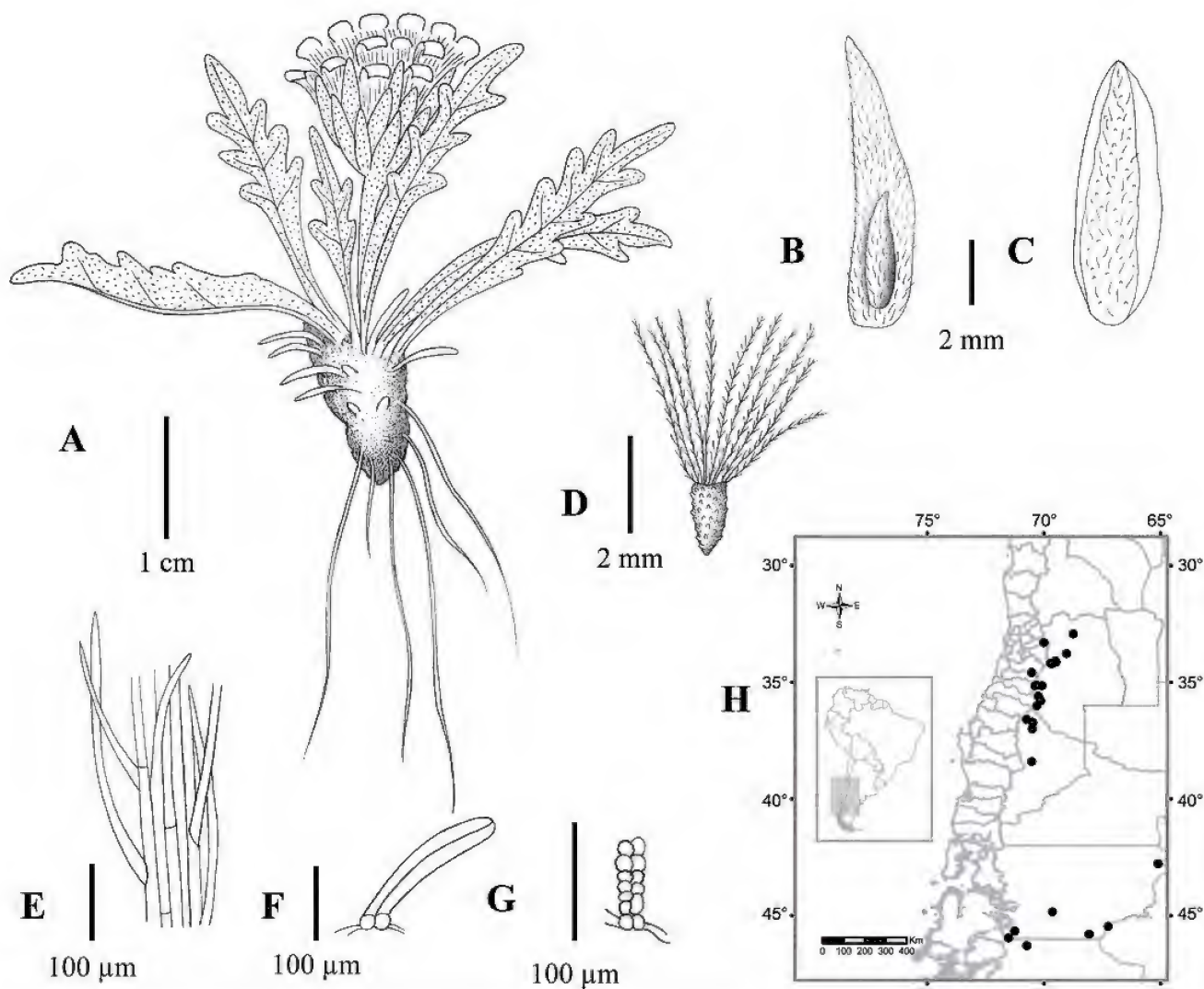


FIGURE 16. *Leucheria candidissima* D. Don. A. Habit. B. Outer phyllary of the involucre. C. Inner phyllary of the involucre. D. Fruit and pappus. E. Detail of pappus bristle. F. Fruit twin trichome. G. Fruit glandular biseriate trichome. H. Distribution map. A, *Lagiglia* 2215 (LP); B–D, LP 6082; E–G, *Fabris & Zuloaga* 8533 (LP).

Santa Cruz Provinces, on rocky, loose, and sandy soils, and wetland areas (mallines, vegas), from 2,000 to 3,500 masl.

PHENOLOGY. Collected in flower from November to March.

VERNACULAR NAMES. Unknown.

NOTES.

1. *Leucheria candidissima* is very distinctive because of its lanose nature, short scapes, partite leaves with lobes usually thin and long, and solitary capitula. The vegetative propagation by rhizome is another defining trait of this

species, as confirmed by our observations and also mentioned by Reiche (1905).

2. *Leucheria candidissima* can be confused with *L. suaveolens* in their overlapping area of distribution, but *L. candidissima* has short scapes (vs. long scapes, surpassing the leaves in *L. suaveolens*) and pilose fruits (vs. papillose). Some specimens (e.g., *Correa et al.* 4073, *Soriano* 2085) combine pilose fruits (as in *L. candidissima*) and long scapes (as in *L. suaveolens*), so hybridization between these two species seems possible.

3. The flowers are fragrant (*Boelcke et al.* 11411, BAB, LP; *Correa et al.* 6416, BAB).

ADDITIONAL SPECIMENS EXAMINED. ARGENTINA.

PROVINCE CHUBUT: dept. Ameghino, 29 km S de Garayalde, 27 Nov 1975, *M. Correa et al.* 6416 (BAB); dept. Escalante, Pampa del Castillo, Nov 1975, *J. Garrido & Martínez* 736 (BAB), 6 Dec 1970, *S. Crespo & N. Troncoso* 1650 (BAB); a 38 km del cruce de ruta 3 y ruta 277, 3 Dec 1967, *M. Correa et al.* 4073 (BAB, LP); dept. Río Senguerr, camino Río Mayo-Facundo, 24 Nov 1965, *M. Correa & E. Nicora* 3654 (BAB); ruta 272, a 110 km W Río Mayo, 6 Dec 1976, *S. Arroyo et al.* 322 (BAB); dept. Sarmiento, Las Pulgas, estancia Kuepa, 13 Nov 1980, *M. Bertiller & A. Coronato* 503, 504 (BAB). PROVINCE MENDOZA: dept. Malargüe, Portezuelo del Ancho, 30 km W de Los Molles, 19 Jan 1972, *H. Fabris & F. Zuloaga* 8533 (LP); Valle Hermoso, Portezuelo NE, entrada al valle, 28 Jan 1963, *O. Boelcke et al.* 10295 (BAB); Las Loicas, Jan 2005, *F. Luebert & S. Teillier* 2302 (CONC); dept. San Carlos, camino a Laguna del Diamante, arroyo Yancha, 3 Feb 1950, *O. Boelcke* 4137 (BAB); Laguna del Diamante, 16 Jan 1949, *A. Ruiz Leal* 11734 (LP), 4 Mar 1943, *G. Covas* 1082 (LP), 3 Feb 1950, *O. Boelcke* 4094 (BAB); Pampa de las Osamentas, estancia Llancho, 18 Jan 1941, *A. Ruiz Leal* 7166 (LP); vegas de Llancho, 21 Jan 1965, *A. Ruiz Leal* 23536 (LP); dept. San Rafael, N arroyo Barroso y arroyo El Indígena, 10 km N vado Overo, El Sosneado, 26–29 Jan 1972, *H. Lagiglia* 2215 (LP). PROVINCE NEUQUÉN: dept. Chos Malal, extremo NW de la pampa Ferraina, 30 Jan 1964, *O. Boelcke et al.* 11369 (BAB, LP); dept. Loncopué, Huella de Chenque Pehuén, Butahuao, 30 km SE Loncopué, 13 Feb 1974, *M. Gentili* 209 (LP), 15 Jan 1982, *R. Rossow* 1077 (BAB); dept. Minas, confluencia ríos Pichi-Neuquén y Neuquén, cerro de las Yeguas, 36°35'S, 70°45'W, 23 Jan 1970, *O. Boelcke et al.* 13757 (BAB); Piedra del Gallo, 30 Jan 1964, *O. Boelcke et al.* 11411 (BAB, LP); Andacolito, cordillera del Viento, cerro Corona, Jan 1953, *M. Jereb* 17 (LP). PROVINCE SANTA CRUZ: dept. Lago Buenos Aires, Lago Buenos Aires, 35 km al N de Perito Moreno, RN 40, 30 Jan 1967, *O. Boelcke* 12947 (BAB, SI); estancia La Oriental-Holdich, 12 Nov 1946, *A. Soriano* 2085 (BAB, LP).

CHILE. REGION MAULE: Prov. Curicó: río Teno (interior), 10 Jan 1971, *O. Zöllner* 4965 (LP); termas sulfurosas de los Andes de Curicó, Jan 1933, *Grandjot s.n.* (CONC 1118, 21237); Paso Vergara, Mar 1967, *C. Marticorena & O. Matthei* 1006 (CONC); valle del río Teno, Dec 1970, *O. Zöllner* 4965 (CONC). Prov. Talca: laguna del Maule, Jan 1943, *Behn s.n.* (CONC 21238); paso Pehuenche, Jan 1994, *C. Villagrán et al.* 8239 (CONC), Mar 1973, *C. Marticorena et al.* 88 (CONC). REGION METROPOLITANA DE SANTIAGO: Prov. Cordillera: cajón del río Maipo, vega Los Chorreados, Jan 2000, *S. Teillier* 4548 (CONC); Paso de Maipo, sector Picos Bayos, 23 Mar 2006, *G. Mieres s.n.* (CONC 166157). Prov. Santiago: volcán Maipo, Feb 1950, *Manzano s.n.* (CONC 93772). REGION UNKNOWN: Las Choicas, Jan 1872, without leg. (LP).

6. *Leucheria cantillanensis* Lavandero, *PhytoKeys* 169: 103. 2020. Type: CHILE, Prov. Melipilla, entre el límite de Alhué y Melipilla, Reserva Natural Altos de Cantillana, 33°54'54.24"S, 70°58'43.57"W, 2,007 m, 27 Dec 2019, *N. Lavandero* 700 (holotype: CONC; isotype: SGO). Figure 17.

Perennial herbs, caulescent, 15–30(–40) cm high. Leaves obovate, pinnatisect, lobes entire to dentate, elliptic, oblong, midvein cylindrical, glandulose in both faces; lower leaves rosulate, 5–10 cm long, 2–2.5 cm wide, petiole winged. Capitula 1–6, grouped in lax cymes forming a lax corymbiform synflorescence. Involucres 7–7.2 mm high, 2- or 3-seriate, phyllaries subequal, margins ciliate, glandular-pubescent, outer phyllaries concave, intermediate phyllaries concave to flat, inner phyllaries scarious, concave to flat. Florets 27–30, corolla white. Cypselae pilose, twin trichomes 150–180 µm long. Pappus 4.5–5 mm long, isomorphic, bristles thin and cylindrical, plumose, cilia 210–350(–460) µm long, white.

DISTRIBUTION AND ECOLOGY. Only known from the type locality, endemic to the Cantillana mountain range, part of the coastal Andean range of central of Chile, in Melipilla Province, Metropolitana de Santiago Region. It is found in shaded crevices of rocky outcrops, ~2,000 masl (Lavandero et al. 2020).

PHENOLOGY. Collected in flower in December.

VERNACULAR NAMES. Unknown.

NOTES.

1. We based the species description on the protolog and its corresponding iconography; therefore, some plant features such as the presence or absence of paleaceous phyllaries are missing.
2. *Leucheria cantillanensis* resembles *L. apiifolia* (see Notes for *L. apiifolia*).

7. *Leucheria coerulescens* J. Rémy, *Fl. Chil.* 3: 382. 1847. “Esta bonita especie se cria en los llanos pastosos de la provincia de Valdivia cerca de Daglipulli, etc.” *Lasiiorhiza coerulescens* (J. Rémy) Kuntze, *Revis. Gen. Pl.* 1: 350. 1891, **syn. nov.** Type: CHILE, Prov. Valdivia: Chili, Prov. Valdivia, Daglipulli, Jan 1835, *C. Gay* 357 (lectotype designated here: P00732636 digital image!; isolectotypes: P00732637, P00732638 digital images!). Figure 18.

Leuceria aurita Phil., *Anales Univ. Chile* 87: 106. 1894. “Ad castellum Laja in Araucania januario 1887 invenit orn. C. Rahmer.” Type: CHILE, Prov. Biobío: Chile, en el Fuerte Laja de la Araucania, Jan 1887, *C. Rahmer s.n.* (holotype: SGO 60507!, photograph LP!).

Perennial herbs, caulescent, 18–150 cm high. Leaves oblanceolate, pinnatisect, thistle-like, lobes pinnatilobate-lacinate, linear to triangular, sometimes slightly lyrate with the upper lobe larger than the lateral ones, midvein somewhat planate, slightly araneose adaxially, tomentose abaxially; lower leaves rosulate, 4–20 cm long, 2–4 cm wide, petiole winged. Capitula 7–30, grouped in dense or lax cymes forming a lax, often divaricate, paniculiform synflorescence. Involucres 8–10 mm high, 3-seriate, phyllaries glandular-pubescent and strigose, outer phyllaries

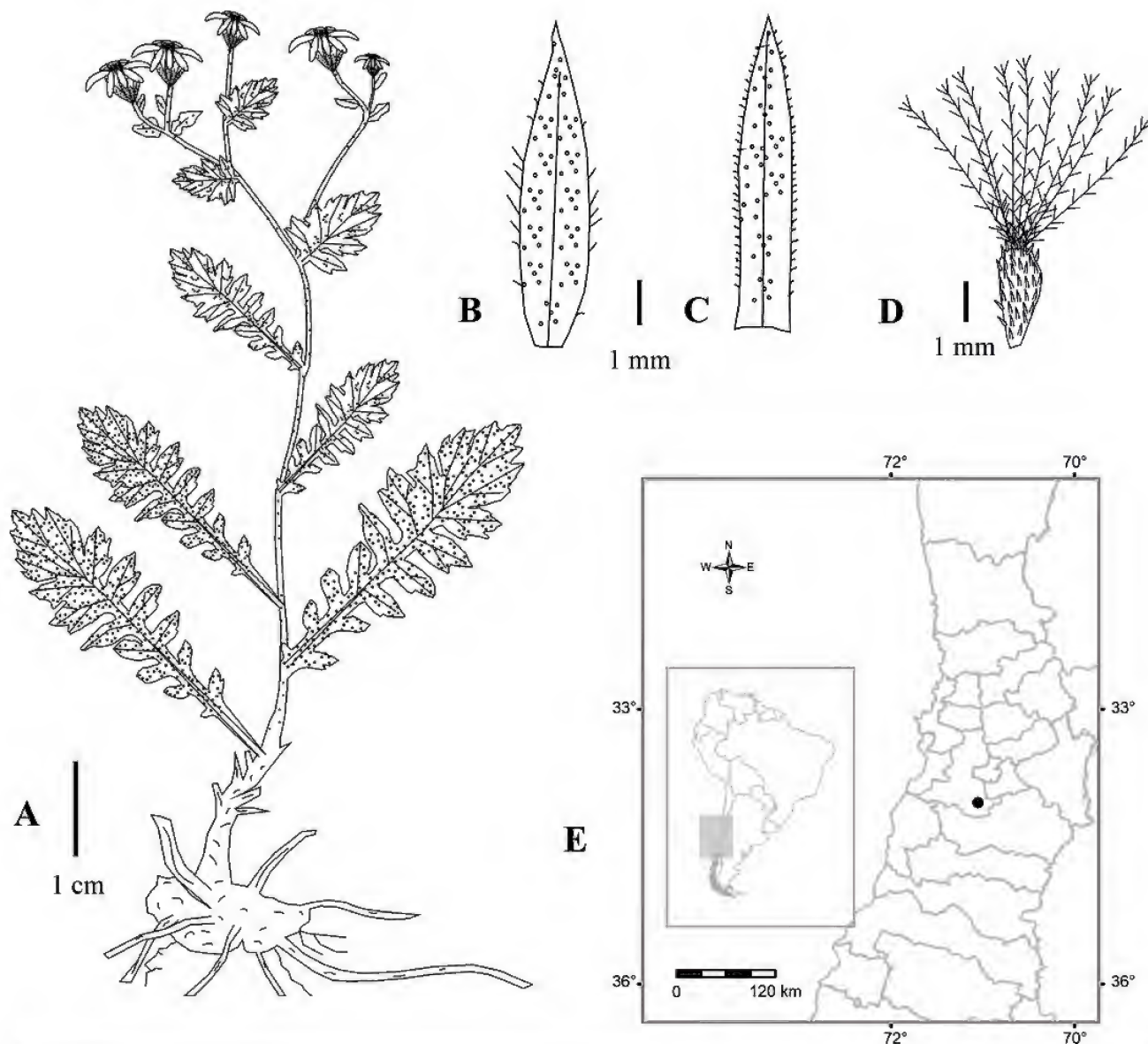


FIGURE 17. *Leucheria cantillanensis* Lavandero. A. Habit. B. Outer phyllary of the involucre. C. Inner phyllary of the involucre. D. Fruit and pappus. E. Distribution map. Redrawn from Lavandero et al. (2020).

shorter, slightly concave, lanose at the base, medium phyllaries concave, inner phyllaries planate, margins scarious; paleaceous phyllaries present. Florets 25–30, corolla lilac, blue, light blue, sometimes white. Cypselae pilose, twin trichomes 200–250 μm long, few glandular biseriate trichomes very short, 50 μm . Pappus 5–7 mm long, isomorphic, bristles thin and cylindrical, scabrid to barbellate, cilia 150–225 μm long, white.

DISTRIBUTION AND ECOLOGY. Chile, in Araucanía, Biobío, Los Ríos (type), Ñuble and O'Higgins Regions, and Argentina, in Chubut, Neuquén, and Río Negro Provinces; typical of the *Nothofagus* forest, on hills, shores of lakes and rivers, in shady places like the understory and beneath the canopy of plants, and also in open areas of the forest, on loam and sandy soils, up to 1,800 masl.

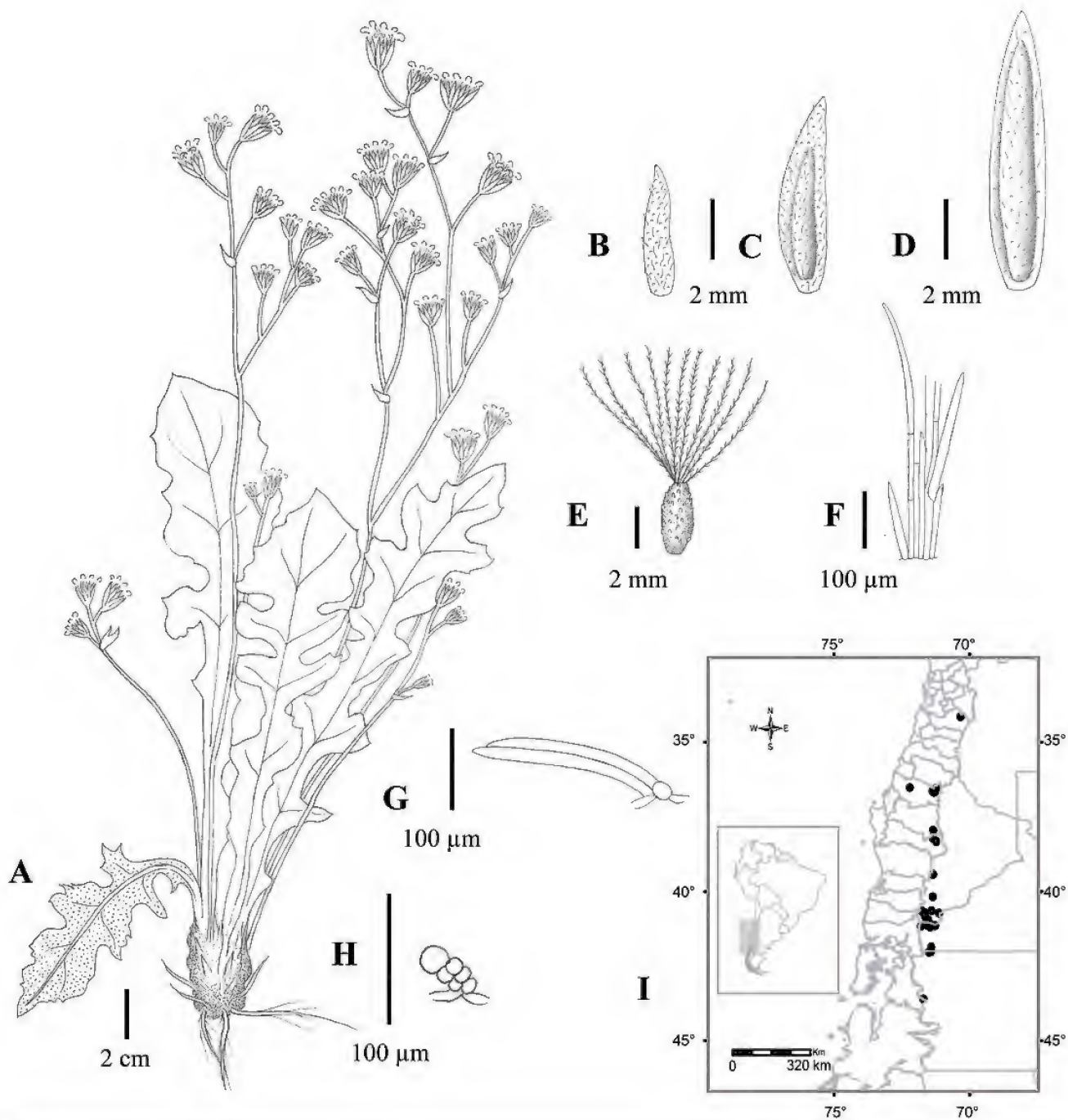


FIGURE 18. *Leucheria coerulescens* J. Rémy. A. Habit. B. Outer phyllary of the involucre. C. Middle phyllary of the involucre. D. Inner phyllary of the involucre. E. Fruit and pappus. F. Detail of pappus bristle. G. Fruit twin trichome. H. Fruit glandular biseriate trichome. I. Distribution map. A, *Fabris* 1097 (LP); B–E, *Cabrera* 11203 (LP); F–H, *Boelcke* 1778 (LP).

PHENOLOGY. Collected in flower from November to March.

VERNACULAR NAMES. Unknown.

NOTES.

1. Rémy (1847) described *Leucheria coerulescens* as annual, but the analysis of type and nontype specimens shows that this is a perennial herb.
2. *Leucheria coerulescens* is distinctive because of its thistle-like pinnatisect leaves, with pinnatilobate-lacinate lobes, sometimes pectinate upper leaves with large and acute lobes, and capitula with long peduncles at wide angles forming paniculiform, divaricate synflorescences. The leaves resemble those of *L. hieracioides* Cass. and *L. runcinata*. *Leucheria hieracioides* can be differentiated from them by its leaves with a cylindrical midvein, capitula with 55–90 florets, and its habitat in the sclerophyllous and deciduous matorral and forests of central Chile. *Leucheria runcinata* has peduncles and phyllaries that are notably glandular-pubescent (vs. somewhat lanose in *L. coerulescens*), and it occurs in drier and higher habitats at 1,700–3,000 masl in northern and central Chile and western Argentina. *Leucheria coerulescens*, on the other hand, is typical of the subantarctic forests, reaching a maximum altitude of 1,800 masl. It is possible that these three species represent a single species adapted to different habitats, but for the moment we prefer to keep them as separate taxonomic entities.

ADDITIONAL SPECIMENS EXAMINED. ARGENTINA.

PROVINCE CHUBUT: dept. Cushamen, Las Golondrinas, 10 Jan 1937, R. Labitte 446 (LP), id., arroyo de Los Saltos, 10 Jan 1937, R. Labitte s.n. (BAB 52083); dept. Futaleufú, PN Los Alerces, camino abandonado al mirador Laguna Escondida, 42°44,954'S, 71°44,139'W, 21 Feb 2019, G. Sancho & M. Bonifacino 384 (LP); dept. Languiñeo, Carrenleufú, 1901, C. Spegazzini s.n. (LP). **PROVINCE NEUQUÉN:** dept. Aluminé, lago Quillen, orilla NE, 25 Dec 1948, A. Krapovickas 3737 (BAB); dept. Lácar, San Martín de los Andes, 12 Feb 1972, J. Crisci 517 (LP), 23 Jan 1941, A. Bridaroli 2082, 2162 (LP), 12 Dec 1952, A. Cabrera 11203 (LP), 18 Mar 1955, H. Fabris 1097 (LP); dept. Los Lagos, río Trafal, 6 Jan 1969, A. Ruiz Leal 26614 (LP); lago Trafal, 21 Mar 1939, A. Cabrera 5090 (LP); Plaza de Toro, Isla Victoria, 8 Jan 1936, G. Grüner 136 (LP); Isla Victoria, parte norte, desembocadura de lago Mercedes y Larga, 11–13 Nov 1946, Perrone s.n. (LP 909379); Isla Victoria, Piedra Blanca, 15 Mar 1934, R. Spegazzini 61, 63 (BAB); Isla Victoria, Puerto Pampa, 13 Mar 1934, R. Spegazzini 23, 25 (BAB); Parque Nacional Nahuel Huapi, Isla Victoria, Feb 1954, A. Cabrera 11503 (LP), 9 Jan 1946, O. Boelcke 790 (LP), 13 Feb 1948, A. Corte 142 (LP), 15 Feb 1948, A. Corte 124 (LP), 9 Jan 1935, A. Cabrera & M. Job 164 (LP), 9 Jan 1946, O. Boelcke 1778 (LP); Parque Nacional Nahuel Huapi, San Carlos de Bariloche, península Quetrihué, Dec 1936, J. Dean s.n. (BAB 65200); Nahuel Huapi, Jan 1898, without leg. (LP), 16 Feb 1898, S. Roth s.n. (LP 6003, 75067); lago Correntoso, arroyo La Rana, 12 Mar 1963, E. de

la Sota 2814 (LP); lago Espejo, 28 Feb 1974, O. Zöllner 7627 (CONC). Without department: without date and leg. (LP 6002). **PROVINCE RÍO NEGRO:** dept. Bariloche: Cerro López, 17 Feb 1972, J. Crisci 535, 536 (LP); Parque Nacional Nahuel Huapi, Puerto Pañuelo, 5 Feb 1952, O. Boelcke & M. Correa 5212 (LP); Bariloche, 15 Feb 1930, J. Hirschhorn s.n. (LP 75068, 75069), 28 Jan 1914, Muniez & Rothkugel 15 (BAB); El Bolsón, 1901, C. Spegazzini s.n. (LP 75333); alrededores de El Bolsón, 18 Jan 1957, Mazzucconi 1358 (BAB); lago Espejo, 7 Feb 1940, A. Cabrera 5990 (LP); lago Nahuel Huapi, península Totorá, 24 Dec 1942, C. Millaqueo 33 (LP); cerro Catedral, Mar 1943, A. Soriano 190 (BAB).

CHILE. REGION ARAUCANÍA: Prov. Malleco: Parque Nacional Nahuelbuta, Piedra del Águila, 28 Mar 1971, M. Mahu 5809 (LP); Lonquimay, Punta Negra, Feb 1938, A. Hollermayer 732 (CONC, LP); Lonquimay, Feb 1930, A. Hollermayer s.n. (CONC 104945), Feb 1921, A. Hollermayer 447 (CONC), Feb 1955, G. Montero O. 4827 (CONC); Villa Portales, Feb 1969, G. Montero O. 8261 (CONC). **REGION BIOBÍO:** Prov. Biobío: arroyo Paucunto, alto Biobío, without date, R. Maldonado B. 59 (LP). **REGION LIBERTADOR BERNARDO O'HIGGINS:** Prov. Cachapoal: Termas de Cauquenes, 18 Nov 1965, M. Mahu 1035 (LP). **REGION ÑUBLE:** Prov. Diguillín: Atacalco, Fundo Los Cipreses, en la angostura de Las Cortinas, 7 Dec 1945, A. Pfister 5000 (CONC, LP); camino de aserradero a Garganta del Diablo, Mar 1966, Gleisner 152 (CONC); Termas de Chillán, Feb 1994, O. Zöllner 20522 (CONC); Selva, Jan 1973, O. Zöllner 6637 (CONC); río Chillán, antes del Salto Los Pellines, Feb 2009, N. García 4347 (CONC). Prov. Itata: Itata, Nov 1934, G. Montero O. 1954 (CONC); 13,5 Km E de Recinto, Jan 1993, T. Stuessy & Ruiz 12714 (CONC); 22 km E de Recinto, T. Stuessy & Ruiz 12716 (CONC).

8. *Leucheria daucifolia* (D. Don) Crisci, Darwiniana 20: 52. 1976. *Ptilurus daucifolius* D. Don, Trans. Linn. Soc. Bot. 16: 219. 1830. "In Peruviae summis alpinis Cordilleras de los Andes Hispanice dictis. Ruiz et Pavon." *Chabrea daucifolia* (D. Don) Wedd., Chlor. Andina 1: 35. 1855. Type: PERU: Del Perú, Ruiz y Pavón s.n. (holotype: OXF, photograph LP!). Figure 19.

Chabrea laciniata Wedd., Chlor. Andina 1: 34, tab. 10. 1855, non *Leucheria laciniata* Hook. & Arn., 1835 (= *Leucheria candidissima* D. Don). "Pérou, Cordillères du département de Cuzco? (Gay)." Type: PERU: Pérou, 1830–1840, C. Gay s.n. (holotype: P!, P00732641 digital image!).

Perennial herbs, caulescent, 9–25 cm high. Leaves oblanceolate, oblong, obovate, bipinnatisect, lobes partite, linear to oblanceolate, midvein wide, planate, glandular-pubescent in both faces; lower leaves rosulate or subrosulate, 3–17 cm long, 1–2 cm wide, petiole winged, accompanied by many dry petioles. Capitula 4–15, grouped in dense or lax cymes forming a lax corymbiform synflorescence, occasionally solitary capitula. Involucres 12–20 mm high, 2- or 3-seriate, phyllaries planate, glandular-pubescent and strigose, with red lines, outer phyllaries

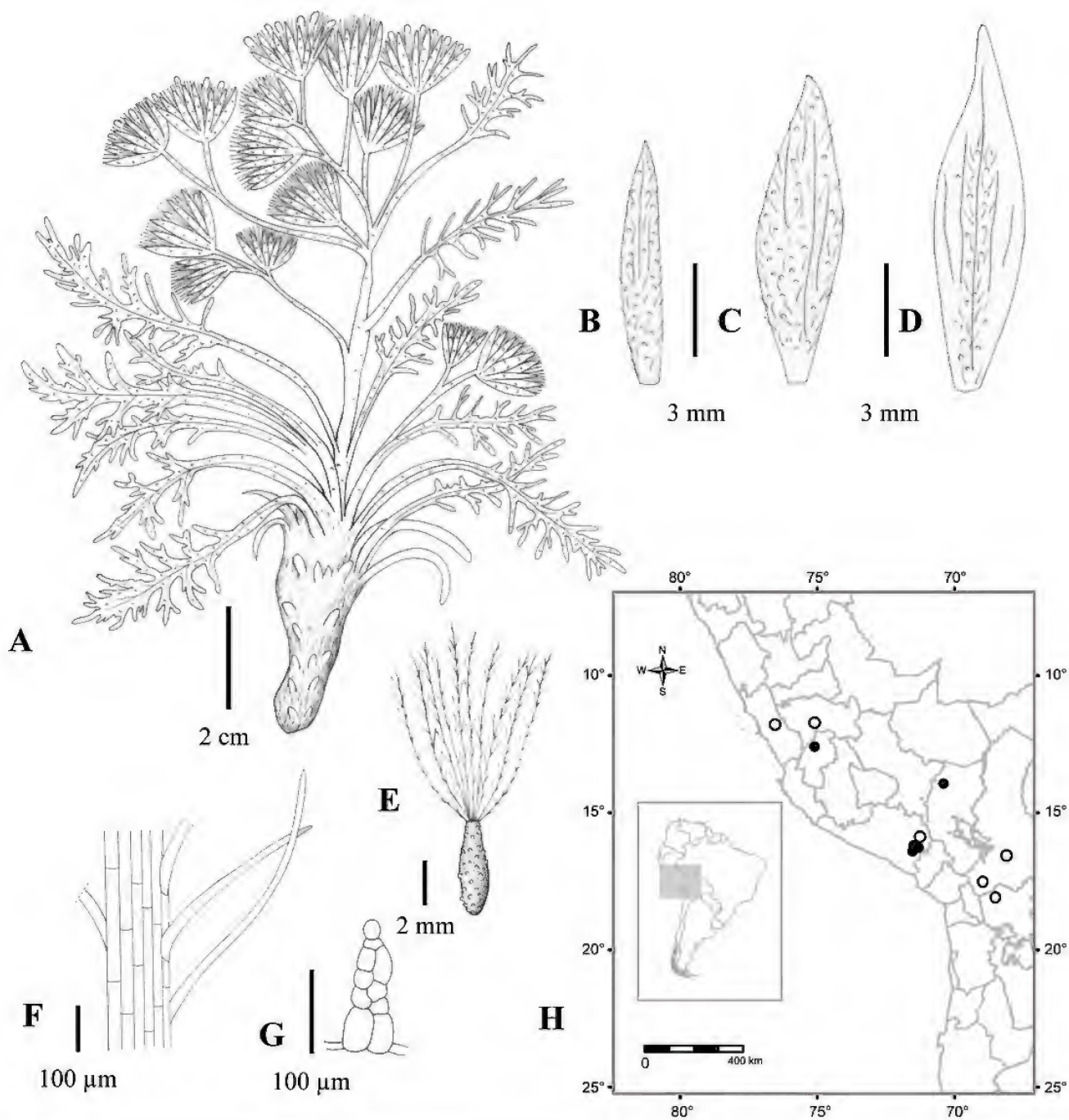


FIGURE 19. *Leucheria daucifolia* (D. Don) Crisci. A. Habit. B. Outer phyllary of the involucre. C. Middle phyllary of the involucre. D. Inner phyllary of the involucre. E. Fruit and pappus. F. Detail of pappus bristle. G. Fruit glandular biseriate trichome. H. Distribution map; white circles from Crisci (1976), Ferreyra (1995), Soto Requez and Ruiz Rondinel (2018). A, F, G, *Tovar 1147* (LP); B–E, *Ferreyra 2599* (LP).

shorter, inner phyllaries sometimes with margins scarious; paleaceous phyllaries absent. Florets 50–180, corolla white. Cypselae glandular-pilose, glandular biseriate trichomes. Pappus 8–9 mm long, isomorphic, bristles wide and flat, long plumose, cilia 600–650 μ m long, white.

DISTRIBUTION AND ECOLOGY. This species reaches the northernmost distribution of the genus, and it is the only one that inhabits Bolivia and Peru. It grows in southern Peru, in Ancash, Arequipa, Cusco, Huancavelica, Junin, Lima, Moquegua, Pasco, and Puno Departments (Ferreyra 1995; Montesinos Tubée 2012), and in Bolivia, in Cochabamba, La Paz, Oruro, and Potosí (Crisci 1976; Ferreyra 1995; Hind 2011; Jørgensen et al. 2014; Soto Requez and Ruiz Rondinel 2018). *Leucheria daucifolia* has also been cited for northern Chile, but we consider this species to be exclusively from Bolivia and Peru. It grows in the Andes and Puna, on rocky slopes, between and under rocks, and occasionally in wetlands (vegas; Zeballos et al. 2010), from 3,800 to 5,100 masl.

PHENOLOGY. Collected in flower from November to April.

VERNACULAR NAMES. Chucapacu, churoq wasin, cineraria de la cordillera (type), sasahui, sasawi (Ururi Cucho 2013; Soto Requez and Ruiz Rondinel 2018).

NOTES.

1. Don (1830) considered this species to have a 2-seriate pappus, but the macro- and microscopical observations of the pappus in several specimens show that *L. daucifolia* has wide pappus bristles arranged in one series (see Morphology section).
2. This species is distinctive because of its soft leaves, which are profoundly partite, with a planate midvein, large capitula, and a long plumose pappus. *Leucheria daucifolia* seems to be a bigger form of *L. salinae*, but these species are here maintained as separate entities according to the following characters: 12–20 mm high involucre and 8–9 mm long pappus in *L. daucifolia* and 5–10(–12) mm high involucre and 4–6(–6.5) mm long pappus in *L. salinae*. Geographically, *L. daucifolia* grows in Peru and Bolivia, whereas *L. salinae* grows in Chile and Argentina.
3. This species was included in a checklist of the Arica and Parinacota Region, in northern Chile (Moreira Muñoz et al. 2016), but the cited specimen (*M. Arroyo 84-845A*,

CONC) corresponds to *L. salinae*. Likewise, Ríos et al. (2018) cited this species for the Tarapacá Region, without citing specimens.

4. Some populations of *L. daucifolia* in Peru have reached vulnerable status as a result of its overexploitation because of its medicinal uses (Zeballos et al. 2010). A decoction of stems and roots of *L. daucifolia*, together with *Azorella compacta* Phil. and *Senecio violaeifolius* Cabrera, is used to eliminate parasites in cattle (Mamani and Huanca 2010; Cáceres de Baldarrago et al. 2012). It is also used for respiratory problems (Delgado Súmar 1999) and as an emmenagogue (Pauro et al. 2011).

ADDITIONAL SPECIMENS EXAMINED. PERU.

DEPT. AREQUIPA: Arequipa: Sihuata, entre Arequipa y Puno, 13 Nov 1947, *R. Ferreyra 2599* (LP). **DEPT. HUANCAMELICA:** Huancavelica: Huaytanayocc-Tansiri, entre Conayca y Manta, 31 Mar 1953, *O. Tovar 1147* (LP). **DEPT. PUNO:** Carabaya: Fauchinta, Allinccapacc, 1 Apr 1948, *C. Vargas C. 7179* (LP).

9. *Leucheria diemii* Cabrera, Bol. Soc. Argent. Bot. 11: 288. 1969. Type: ARGENTINA, Prov. Neuquén: Parque Nacional Nahuel Huapi, S del cerro Fía, 27 Mar 1966, *W. Diem 3311* (holotype: LP s.n.!, LP0291 digital image!; isotypes: BAB!, BAB0102 digital image!, SI!, SI0911 digital image!). Figure 20.

Perennial herbs, scapose, 2–10 cm high. Leaves oblanceolate, entire or somewhat dentate, midvein cylindrical, very lanose in both faces; lower leaves rosulate, 1–5 cm long, 0.3–0.5 cm wide, petiole winged. Capitula solitary, usually 1–3 capitula per plant. Involucres 8–10 mm high, 2-seriate, phyllaries subequal, sometimes the outer phyllaries slightly longer, with red lines, glandular-pubescent, outer phyllaries concave or planate, somewhat lanose, inner phyllaries more planate, margins scarious; paleaceous phyllaries absent. Florets 30–42, corolla white-pinkish, purple. Cypselae pilose, twin trichomes ~300 μ m long. Pappus 4–6 mm long, isomorphic, bristles thin and cylindrical, long plumose, cilia 550–600 μ m long, white.

NOTE. This species resembles *L. suaveolens* in its densely lanose leaves and solitary capitula, but *L. diemii* has entire or somewhat dentate leaves (vs. usually partite) and pilose fruits, with relatively long and cylindrical trichomes (vs. papillose with short and rounded trichomes).

KEY TO THE VARIETIES OF *LEUCHERIA DIEMII*

1. Corollas white-pinkish; capitula with 34 or 35 florets *L. diemii* var. *diemii*
- 1'. Corollas purple; capitula with 40–42 florets *L. diemii* var. *purpurea*

9a. *Leucheria diemii* var. *diemii*

DISTRIBUTION AND ECOLOGY. Mostly concentrated in the province of Neuquén, but some populations are found in the province of Santa Cruz, Argentina (Iribarren and

Ferreyra 2011; our observations), on rocky and sandy soils with scarce vegetation, from 1,500 to 2,100 masl.

PHENOLOGY. Collected in flower from January to March.

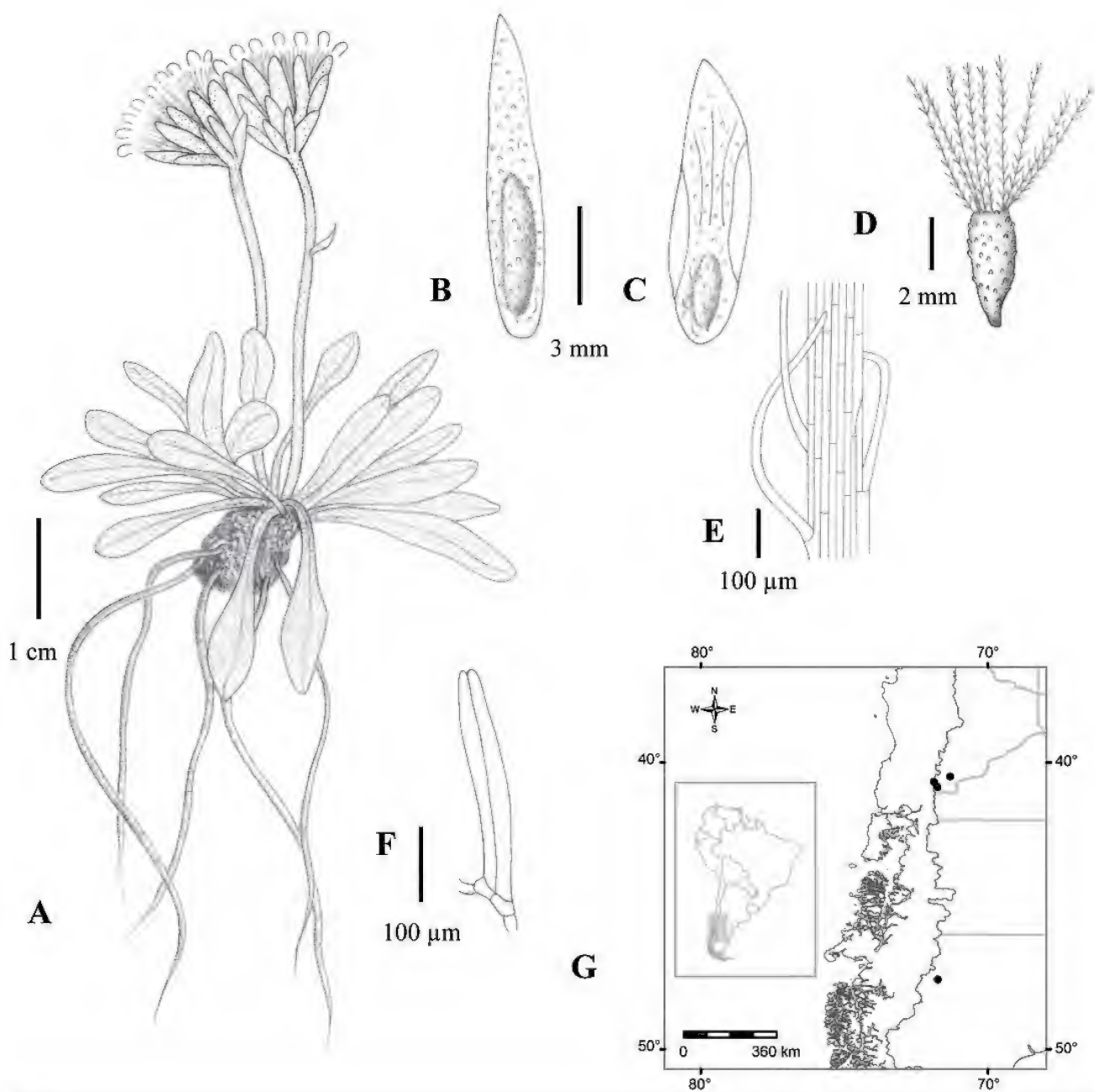


FIGURE 20. *Leucheria diemii* Cabrera var. *diemii*. A. Habit. B. Outer phyllary of the involucre. C. Inner phyllary of the involucre. D. Fruit and pappus. E. Detail of pappus bristle. F. Fruit twin trichome. G. Distribution map. A–F, *Diem* 3602 (LP).

VERNACULAR NAMES. *Leucheria rosada* pequeña (Iribarren and Ferreyra 2011).

ADDITIONAL SPECIMENS EXAMINED. ARGENTINA. PROVINCE NEUQUÉN: dept. Los Lagos, Parque Nacional Nahuel Huapi, cerro Mesa, sobre el lago Filo Hua Hum, 2 Mar 1975, *J. Diem* 3602 (LP); Parque Nacional Nahuel Huapi, cerro Llaihueque, 27 Jan 1964, *J. Diem* 3219 (LP); Rincón Grande, Cerro Bayo, Jan 1942, *D. de Jones* 109 (LP). PROVINCE SANTA CRUZ: dept. Lago Buenos Aires, ruta provincial 41, km 72, 8 Jan 2013, *F. Ratto et al.* 107 (BAA).

9b. *Leucheria diemii* var. *purpurea* Ratto, Bello, & Adr. Bartoli, Bol. Soc. Argent. Bot. 49: 92. 2014. Type: ARGENTINA, Prov. Santa Cruz: Dpto. Río Chico, 26,7 km al SE de Hipólito Yrigoyen [currently Lago Posadas], Estancia La Siberia, 1,237 m s. m. [sobre el nivel del mar], 14 Jan 2013, *F. Ratto et al.* 352 (holotype: BAA!, BAA 00004548 digital image!).

Leucheria arancioi Jara-Arancio, Ratto, & Adr. Bartoli, Phytotaxa 404: 54. 2019, *nom. nov. pro Leucheria diemii* Cabrera var. *purpurea* Ratto, Bello, & Adr. Bartoli, *syn. nov.* Type: The same as *L. diemii* var. *purpurea* Ratto, Bello, & Adr. Bartoli.

DISTRIBUTION AND ECOLOGY. Species known by only the type specimen, from Santa Cruz Province, Argentina. It grows on slopes, in rocky soils, at about 1,200 masl.

PHENOLOGY. Collected in flower in January.

VERNACULAR NAMES. Unknown.

NOTES. Ratto et al. (2014) established *Leucheria diemii* var. *purpurea* to differentiate materials with purple corollas from those with white-pinkish corollas characteristic of the typical form. These authors found the only known specimen of the new variety (the type specimen) in Santa Cruz Province, Argentina. This variety had an apparent disjunct distribution from the populations of var. *diemii* that occur in Neuquén Province in Argentina, but we found a specimen of *L. diemii* var. *diemii* from Santa Cruz. Later, Jara-Arancio et al. (2019) elevated *L. diemii* var. *purpurea* to the species rank, as *Leucheria arancioi*, mostly on the basis of a cluster analysis in which the varieties did not group together. The morphological characters that distinguish *L. arancioi* from *L. diemii* var. *diemii* are found in the list of characters and character states used for the cluster analysis by Jara-Arancio et al. (2019): plant height of 10 cm or more (vs. less than 10 cm in *L. diemii* var. *diemii*), convex receptacle (vs. slightly convex), purple corolla (vs. white and pink), 40 or more florets per capitula (vs. less than 40), exterior lip of the corolla with 4 veins (vs. 3 veins), and anther length of 3 mm or less (vs. more than 3 mm). However, the type specimen of *L. diemii* var. *diemii* (*Diem* 3311) shares some of these features with *L. arancioi*, for example, corolla lips with 4 veins and an anther length of 3 mm or less. We maintain here *L. diemii* var. *purpurea* established by Ratto et al. (2014) and consider *L. arancioi* a synonym of this variety because (1) the characters between *L. arancioi* and *L. diemii* var. *diemii* overlap, (2) only one specimen (the type) of *L. arancioi* was analyzed and therefore some

morphological variation could be missing, (3) *L. arancioi* and *L. diemii* var. *diemii* share synapomorphies (lanose, scapose herbs with mostly entire leaves; capitula without paleaceous phyllaries; cypselae with medium-size twin trichomes; long, plumose pappus), and (4) the corolla color would be the only reliable character that differentiates *L. arancioi* from *L. diemii* var. *diemii*.

10. *Leucheria eriocephala* Speg., Anales Soc. Ci. Argent. 53: 31. 1902. "Hab. In rupestribus montanis Karr-aik prope Lago Argentino, Mrt. 1898 (C. A.) [Carlos Ameghino; Katinas et al. 2001]." Type: ARGENTINA, Prov. Santa Cruz: Patagonia, Karr-Aik, Lago Argentino, aest. [aestivus] 1898, *C. Ameghino s.n.* (holotype: LP s.n.!, LP000098 digital image!). Figures 11C, 21.

Leucheria papillosa Cabrera, Revista Sudamer. Bot. 3: 58. 1936, *syn. nov.* Type: ARGENTINA, Prov. Río Negro: Cerro López, 1,500 m s. m., 15 Jan 1935, *A. L. Cabrera & M. M. Job* 339 (lectotype designated by Katinas [2015:418]: LP 6034!, LP000294 digital image!; isolectotype: LP 75265!, LP000295 digital image!).

Perennial herbs, scapose, 5–30 cm high. Leaves oblanceolate, obovate, pinnatifid, sometimes pinnatipartite, lobes, entire, dentate, lobate, ovate, oblong, triangular, obovate, midvein planate, wide, glabrous or strigose and glandular-pubescent adaxially and abaxially; lower leaves rosulate, 1.5–12 cm long, 0.6–1.8 cm wide, disposed in one or in more than one bundle by sprouting rhizome, petiole winged. Capitula solitary or 2 by bifurcation of the scape, usually 1–7 capitula per plant. Involucres 10–14 mm high, 2-seriate, phyllaries subequal, glandular-pubescent, sometimes completely lanose or lanose at the base, outer phyllaries planate or somewhat concave, inner phyllaries concave, with thick central nervature that ends in a short spine, margins ciliate; paleaceous phyllaries absent. Florets 35–50, corolla white, pink. Cypselae pilose, abundant twin trichomes 150–200 µm long, abundant glandular biseriate trichomes. Pappus 4.5–6 mm long, isomorphic, bristles thin and cylindrical, long plumose, cilia ~450 µm long, white.

DISTRIBUTION AND ECOLOGY. Chile, in Aysén, Biobío, Los Lagos, and Los Ríos Regions, also cited for Araucanía Region (Crisci 1976), and Argentina, in Chubut, Neuquén, Río Negro, and Santa Cruz Provinces; common in the *Nothofagus* forests reaching the timberline, mainly on humid soils, in lakes, and on stream shores, also on slopes among rocks, from 1,000 to 1,900 masl.

PHENOLOGY. Collected in flower from December to April.

VERNACULAR NAMES. Mayin (*Marchioni s.n.*, LP).

NOTES. Some specimens of *L. eriocephala* (e.g., *Cabrera et al.* 23137, LP) with smaller and partite leaves resemble *L. scrobiculata* and *L. purpurea*. *Leucheria scrobiculata* has smaller capitula with a 6–9 mm long involucre (vs. 10–14 mm long involucre in *L. eriocephala*) and inhabits the northernmost locations (Mendoza and San Juan Provinces in Argentina and central Chile). *Leucheria purpurea*, on the other hand, has short and rounded cypselae trichomes, giving a dotted appearance (vs. a pilose appearance). It also resembles dwarf specimens

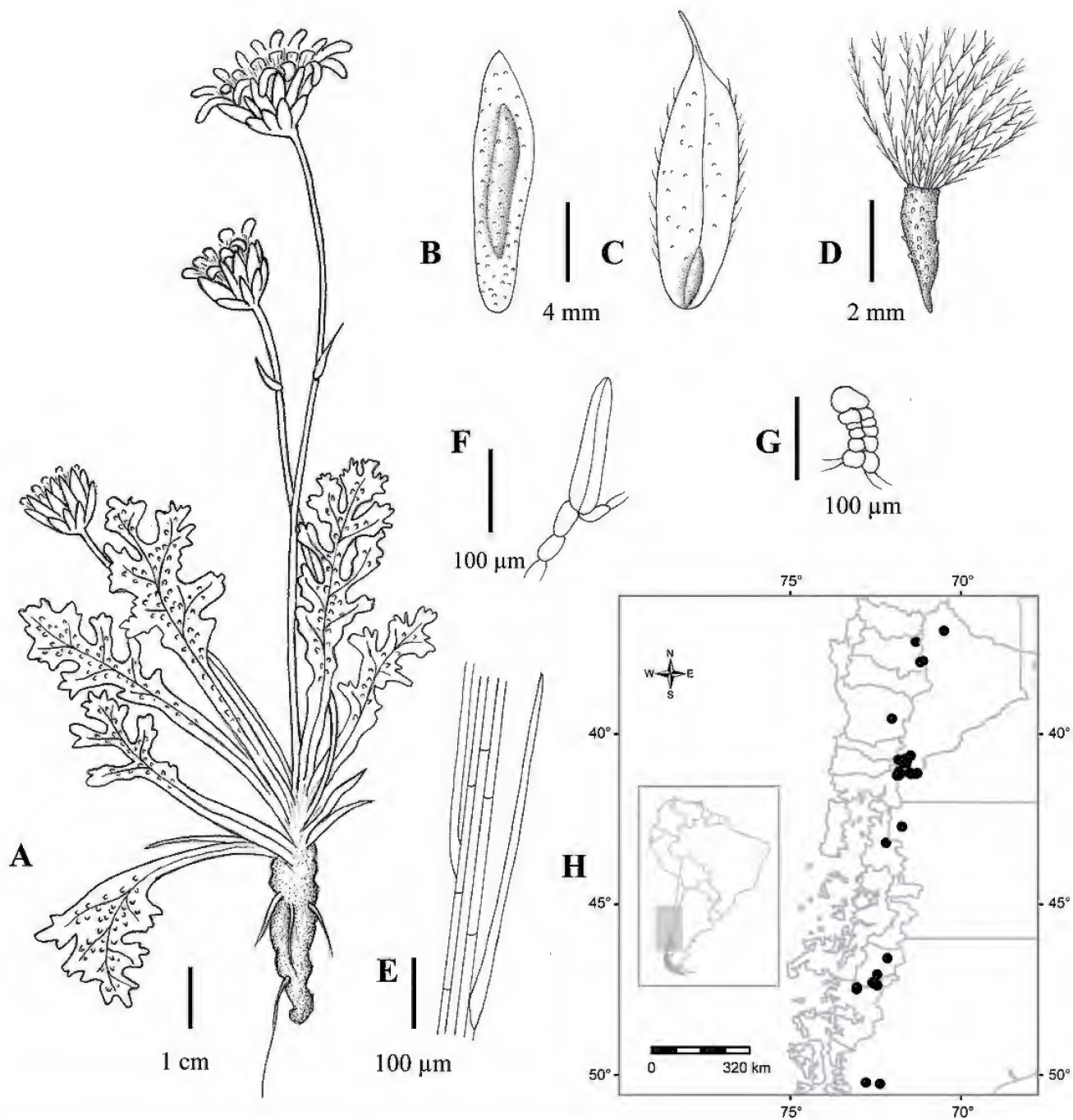


FIGURE 21. *Leucheria erioccephala* Speg. A. Habit. B. Outer phyllary of the involucre. C. Inner phyllary of the involucre. D. Fruit and pappus. E. Detail of pappus bristle. F. Fruit twin trichome. G. Fruit glandular biseriate trichome. H. Distribution map. A, *Cabrera et al.* 22922 (LP); B–D, *Hunziker* 7051 (LP); E–G, *Cabrera & Crisci* 19219 (LP).

of *L. salinae*, a species that grows from Jujuy to Mendoza in Argentina, but both species can easily be distinguished by the pubescence of the fruits: glandular in *L. salinae* and pilose (long, cylindrical or elliptical twin trichomes) in *L. eriocephala*.

ADDITIONAL SPECIMENS EXAMINED. ARGENTINA.

PROVINCE CHUBUT: dept. Futaleufú, Lago Verde, 21 Feb 1959, A. Soriano 4215 (BAB). PROVINCE NEUQUÉN: dept. Los Lagos, lago Nahuel Huapi, Villa La Angostura, without date, M. Ellenberg 949 (LP); Parque Nacional Nahuel Huapi, cordón del cerro Colorado, 10 Mar 1959, E. de la Sota 2195 (LP); refugio Cerro Colorado, 14 Feb 1953, O. Boelcke & M. Correa 6888 (BAB, LP), 6902 (BAB); cerro Dormilón, without date, J. Diem 30 (LP); cerro Dormilón, brazo Rincón, lago Nahuel Huapi, 29 Mar 1934, R. Spegazzini 235 (BAB, LP); dept. Minas, Cordillera del Viento, cruzada de Tricao Malal al cajón de Butaló, 3 Feb 1964, O. Boelcke 11556 (LP); dept. Norquín, Copahue, 13 Jan 1973, A. Cabrera et al. 22922 (LP); Quetrihué, lago Nahuel Huapi, Dec 1936, Y. Dean 25 (BAB); Puerto Manzano, 22 Feb 1953, O. Boelcke & M. Correa 7066 (BAB); entre Puerto Manzano y lago Traful, nacimiento del arroyo sin nombre, 14 Feb 1953, O. Boelcke & M. Correa 6904, 6912 (BAB). Without locality: 1 June 1900, O. Asp 175 (BAB); without data (LP 6014). PROVINCE RÍO NEGRO: dept. Bariloche, Parque Nacional Nahuel Huapi, orilla de arroyo que baja del ventisquero Río Alerce, S Paso de las Nubes, 1 Jan 1970, U. Eskuche 1050 (LP); Paso de las Nubes, 5 Feb 1940, Cabrera 5905 (LP); San Carlos de Bariloche, cerro Catedral, 20 Jan 2000, M. Bonifacio et al. 256 (LP), Feb 1943, A. Soriano 202 (BAB), 7 Feb 1977, S. Crespo & R. Giangualani 2105 (BAB); cerro Tronador, 25 Feb 1941, J. Neumeyer 472 (LP), 9 Jan 1948, M. Job 2440 (LP), Jan 1962, Vallerini 139 (BAB); ventisqueros del Tronador, 18 Feb 1968, A. Cabrera & J. Crisci 19219 (LP), 1 Mar 1957, J. Hunziker 7051 (BAB, LP); Tronador, nacimiento del río Manso, 23–24 Mar 1946, R. Scolnik 244 (LP); cerro López, 27 Jan 1946, O. Boelcke 1959 (LP), Jan 1960, H. Fabris 2157 (LP); cerro Riggi, Feb 1959, J. Marchioni s.n. (LP), 11 Jan 1952, O. Boelcke & M. Correa 5469 (BAB); pie cumbre cerro Refugio y cerro Ventana, 16 Feb 1953, O. Boelcke & M. Correa 6981 (BAB). PROVINCE SANTA CRUZ: dept. Lago Argentino, Lago Argentino, 1958/1959, James 4012 (SI).

CHILE. REGION AYSÉN: Prov. Capitán Prat: Cochrane, nacimiento del río Baker, Jan 2007, Ramírez & Vidal s.n. (CONC 166565); río Baker, sector El Saltón, Jan 2009, E. Teneb 670 (CONC); sector lago Vargas, Jan 2009, E. Teneb 696 (CONC); valle del río Balboa, Jan 2009, E. Teneb 692 (CONC); Villa O'Higgins, río Mosco, Feb 2003, N. García 71, 72 (CONC); al E del río Los Ñadis, cerro sin nombre, 2 Mar 2011, S. Pfanzelt & A. Arriagada 597 (CONC). Prov. General Carrera: cerro Castillo, orilla N del lago Buenos Aires, 21 Feb 1974, O. Zöllner s.n. (CONC 7731, LP). REGION BIOBÍO: Prov. Biobío: Antuco, río Los Pinos, Jan 1991, Ruthsatz 7397, 7412 (CONC). REGION LOS LAGOS: Prov. Palena: cuesta Moraga, Futaleufú, Jan 1997, Hildebrand-Vogel 71 (CONC). REGION LOS RÍOS: Prov. Valdivia: volcán Choshuenco, Jan 1927, Hollermayer s.n. (CONC 93778).

11. *Leucheria floribunda* DC., Icon. Sel. Pl. 4: 39, tab. 88. 1839. "Crecit in excelsis Andibus Chilensium." *Lasiobiza floribunda* (DC.) Kuntze, Revis. Gen. Pl. 1: 350. 1891. *Eizaguirrea candollei* J. Rémy, Fl. Chil. 3: 402. 1847, nom. superfl. It is not clear why Rémy (1847) established this new name and cited *Leucheria floribunda* DC. as its synonym, instead of providing the corresponding combination. Type: CHILE: In rupestribus Andium, C. Gay 319 (lectotype designated here: P!, P00732646 digital image!; isoelectotypes: F!, P!, P00732644, P00732645 digital images!). Syntypes: Chili, C. Gay s.n. (BR0000005329434 digital image!). Cordilières du Chili, 1833, C. Gay s.n. (G-DC00492982 digital image!). Figures 11D,E, 22.

Eizaguirrea [*Eizaguirrea*] *sonchifolia* Turcz., Bull. Soc. Imp. Naturalistes Moscou 24: 213. 1851. "Prostat inter plantas Chilenses Bridgesianas, prope Acouconigua (sic) lecta." *Leuceria sonchifolia* (Turcz.) Reiche, Fl. Chile 4: 432. 1905. Type: CHILE, Prov. San Felipe de Aconcagua: Acouconigua, *Bridges s.n.* (holotype: KW001001551 digital image!). Chili, Prov. San Felipe de Aconcagua, 1844, *Bridges s.n.* (isotype: GH1, GH00006507 digital image!).

Eizaguirrea cirsioides Phil., Linnaea 28: 719. 1856. "In Andibus, prov. Santiago rara videtur." Type: CHILE, Prov. Santiago: Andes de Santiago, R. Philippi s.n. (holotype: SGO 61918!, photograph LP!).

Leuceria racemosa Phil., Anales Univ. Chile 87: 111. 1894. "In Andibus provinciae Santiago habitat. Valle largo, Fr. Philippi." Type: CHILE, Prov. Santiago: Valle Largo, Feb 1892, F. Philippi s.n. (holotype: SGO 60490!; isotype: LP 75413!, LP002163 digital image!).

Perennial herbs, caulescent, 80–150 cm high, stems often wide and hollow. Leaves oblong, oblanceolate, pinnatisect, lobes dentate, triangular, obovate, midvein cylindrical, subglabrous in both faces or slightly tomentose abaxially; lower leaves rosulate to subrosulate, 15–25 cm long, 2–8 cm wide, petiole winged. Capitula 9–60, often on fistulose branches, grouped in dense or lax cymes forming a lax or dense paniculiform, usually pyramidal synflorescence. Involucres 8–10 mm high, 4- or 5-seriate, phyllaries glandular-pubescent, outer phyllaries shorter, planate, intermediate phyllaries concave, somewhat lanose at the base, inner phyllaries planate, margin scarious; paleaceous phyllaries absent. Florets 30–40, corolla white-pinkish. Cypselae papillose, sometimes apparently glabrous, usually black (carbonized), with very few glandular, minute biseriate trichomes, 30–40 µm. Pappus 13–20 mm long, isomorphic, bristles thin and cylindrical, smooth or minutely ciliate, often twisted at the apex, white.

DISTRIBUTION AND ECOLOGY. Chile, in Maule, Metropolitana de Santiago, and Valparaíso Regions, also cited from Coquimbo Region (Ríos et al. 2018) and O'Higgins Region (Crisci 1976), and Argentina, in Mendoza Province; it grows in the Andes, from 1,500 to 3,000 masl.

PHENOLOGY. Collected in flower from December to March.

VERNACULAR NAMES. Unknown.

NOTES.

1. The combination of hollow stems, pyramidal synflorescence with numerous capitula, 4- or 5-seriate involucre,

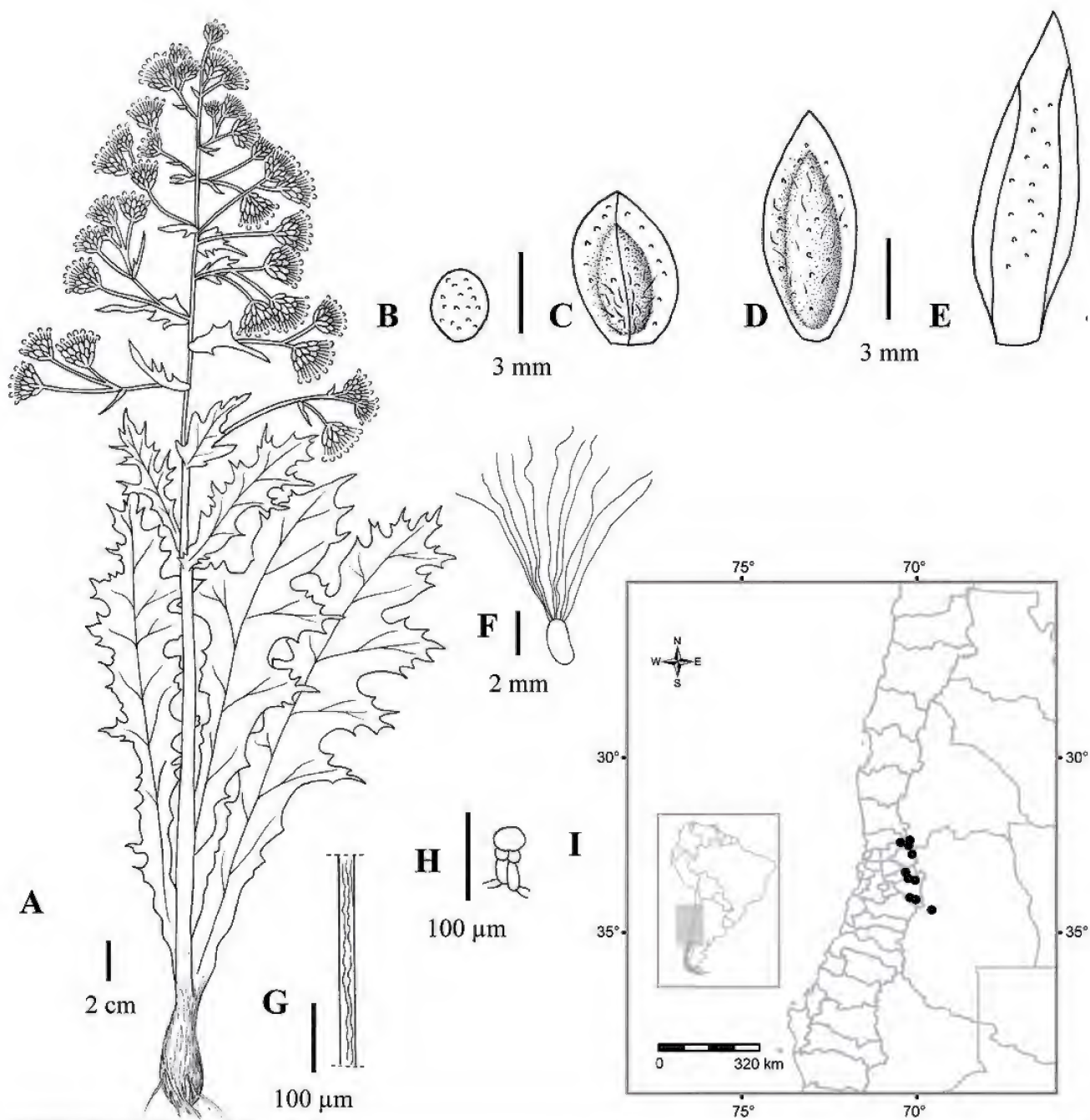


FIGURE 22. *Leucheria floribunda* DC. A. Habit. B. Outer phyllary of the involucre. C. Middle phyllary of the involucre (outermost). D. Middle phyllary of the involucre (innermost). E. Inner phyllary of the involucre. F. Fruit and pappus. G. Detail of pappus bristle. H. Fruit glandular biseriate trichome. I. Distribution map. A, reconstructed from King 432 and Zöllner 3784 (LP); B–F, Zöllner 3784 (LP); G, H, King 432 (LP).

and entire pappus bristles makes *L. floribunda* a very distinctive species. The multiseriate involucre and the entire or occasionally minutely ciliate pappus bristles cause this species to resemble the genus *Perezia*, but *L. floribunda* has a white pappus (vs. generally light brown to reddish in *Perezia*) and has the typical pollen structure (Crisci 1974a, 1976) of the other species of *Leucheria*. In addition, phylogenetic molecular analyses (Jara-Arancio et al. 2017) show that *L. floribunda* is nested in *Leucheria*.

2. In the field *L. floribunda* is perceived as a robust, viscose, shiny green plant (Ruiz Leal & Roig 15562, 16515, LP).

ADDITIONAL SPECIMENS EXAMINED. ARGENTINA.

PROVINCE MENDOZA: dept. Malargüe, valle del Atuel, quebrada del arroyo Nield, 9–17 Jan 1954, A. Ruiz Leal & F. Roig 15562 (LP); quebrada del arroyo Nield, a 1 km de su confluencia con el Atuel, 9–17 Jan 1954, A. Ruiz Leal & F. Roig 15615 (LP).

CHILE. REGION METROPOLITANA DE SANTIAGO: Prov. Chacabuco: Rengo, hacienda Las Nieves, orilla río Blanco, 29 Dec 2005, L. Faúndez & B. Larraín 1146 (CONC); hacienda Santa Filomena, lado N, sobre estero Ortiga, 1 Nov 2012, A. Moreira & M. Muñoz 1818 (CONC). Prov. Cordillera: cajón del Maipo, quebrada a 3 km E de El Diablo, Jan 2000, S. Teillier 4607 (CONC). Prov. Santiago: cordillera Lo Valdes, Jan 1936, Grandjot s.n. (CONC 21242); Peñalolén, Jan 1928, G. Looser 345 (CONC); río Colorado, cajón del Maipo, Jan 1950, E. Barros s.n. (CONC 93769); valle del Ingenio, cajón del Maipo, Feb 1951, E. Barros s.n. (CONC 93773); El Volcán, Jan 1951, Muñoz s.n. (CONC 93774). REGION VALPARAÍSO: Prov. Los Andes: bajada de Potrero Escondido, 23 Feb 1947, O. Boelcke 2497 (LP); quebrada Chepica, Mar 1954, M. Ricardi 2966 (CONC); cajón del río Colorado, Feb 2002, S. Teillier 5161 (CONC). Prov. Marga Marga: cerca de Quilpué, en el camino a Colliguay, Dec 1970, O. Zöllner 4572 (LP). Prov. San Felipe de Aconcagua: Valle Alista, al N de Río Blanco, 28 Feb 1970, O. Zöllner 3784 (LP); Río Blanco, F.C.T.C. [Ferrocaril Trasandino Chileno], 27 Mar 1927, D. King 432 (LP).

12. *Leucheria gayana* (J. Rémy) Reiche, Fl. Chil. 4: 429. 1905. *Chabraea gayana* J. Rémy, Fl. Chil. 3: 400. 1847. “Se halla en los cerros descubiertos de las Provincias centrales.” *Lasiorbiza gayana* (J. Rémy) Kuntze, Revis. Gen. Pl. 1: 350. 1891, **syn. nov.** Type: CHILE: Provincias centrales, 1839, C. Gay s.n. (lectotype designated here: P00732651 digital image!). Chile, 1839, C. Gay s.n. (isolectotypes: B [destroyed] photograph F 16045F!, GH!, GH00004655 digital image!, P!, P00732652, P00732653 digital images!). Syntypes (these specimens lack the year of collection): Chili, C. Gay s.n. (NY00163265, NY00163266, NY00163267, digital images!). Figure 23.

Leucheria nudicaulis Phil., Anales Univ. Chile 87: 100. 1894. “In Valle Tinguirrica Andium prov. Colchagua legit orn. doctor Wenceslao Diaz.”

Type: CHILE, Prov. Colchagua: Valle de Tinguirrica de los Andes de Colchagua, W. Díaz s.n. (holotype: SGO 60504!, photograph LP!).

Leucheria popetana Phil., Anales Univ. Chile 87: 101. 1894. “Etiam haec ex Andibus de Popeta provenit.” Type: CHILE, Prov. Cachapoal: Andes de Popeta, F. Philippi s.n. (holotype: SGO 60509!, photograph LP!).

Perennial herbs, caulescent, 14–50 cm high. Leaves oblong, oblanceolate, entire and slightly dentate to pinnatisect, lobes mostly entire or dentate, elliptic, oblong, obovate, mid-vein cylindrical, strigose abaxially or tomentose in both faces, more pubescent abaxially; lower leaves rosulate to subrosulate, 5–11 cm long, 1–4 cm wide, disposed in one or more than one bundle by sprouting rhizome, petiole winged. Capitula (3–)4–35, grouped in lax cymes forming a lax paniculiform synflorescence, branches usually divaricate. Involucres 9–10(–11) mm high, 3-seriate, phyllaries sometimes purplish, glandular-pubescent and somewhat lanose, outer phyllaries shorter, concave, intermediate phyllaries concave, margins scarious, inner phyllaries planate, margins scarious; paleaceous phyllaries present. Florets 15–25, corolla blue, pink, lilac, white. Cypselae pilose, twin trichomes 150–185 µm long, glandular biseriate trichomes. Pappus 4–6 mm long, isomorphic, bristles thin and cylindrical, plumose, cilia 200–300 µm long, white.

DISTRIBUTION AND ECOLOGY. Chile, in Maule, Metropolitana de Santiago, and O’Higgins Regions, also cited for the Valparaíso Region (Ríos et al. 2018), and Argentina, in Mendoza Province; typical of mountain areas, among sclerophyllous shrubs, from 1,800 to 3,000 masl.

PHENOLOGY. Collected in flower from December to March.

VERNACULAR NAMES. Unknown.

NOTES.

1. Some individuals of *L. gayana* with entire and slightly lobed leaves resemble *L. gilliesii*, and these species coexist in Colchagua and Curicó Provinces in Chile. *Leucheria gayana* can be differentiated from *L. gilliesii* by the cypselae with sparsely distributed trichomes (vs. more tightly distributed in *L. gilliesii*) and capillary bristles with separate cilia (vs. wide bristles with tightly disposed cilia).
2. The florets are fragrant (Boelcke et al. 10368, BAB).
3. *Leucheria gayana* also resembles *L. amoena* (see Notes for *L. amoena*).

ADDITIONAL SPECIMENS EXAMINED. ARGENTINA.

PROVINCE MENDOZA: dept. Malargüe, Valle de las Leñas, 7 Mar 1966, A. Ruiz Leal 24679 (LP), 17 Jan 1970, A. Ruiz Leal 27394 (LP); Paso Pehuenche, sobre frontera con Chile, 30 Jan 1963, O. Boelcke et al. 10368 (BAB); Portezuelo del Ancho, 30 km al oeste de los Molles, 19 Jan 1972, H. Fabris & F. Zuloaga 8508 (LP); dept. San Rafael, distrito Sosneado, alto Valle del Atuel, entre Sominar y laguna Atuel, 6–7 Mar 1955, A. Ruiz Leal 16790 (LP); dept. Tunuyán, valle del Alto Tunuyán, pr. [prope] Paso Hondo, 1 Feb 1934, A. Ruiz Leal 2063 (LP).

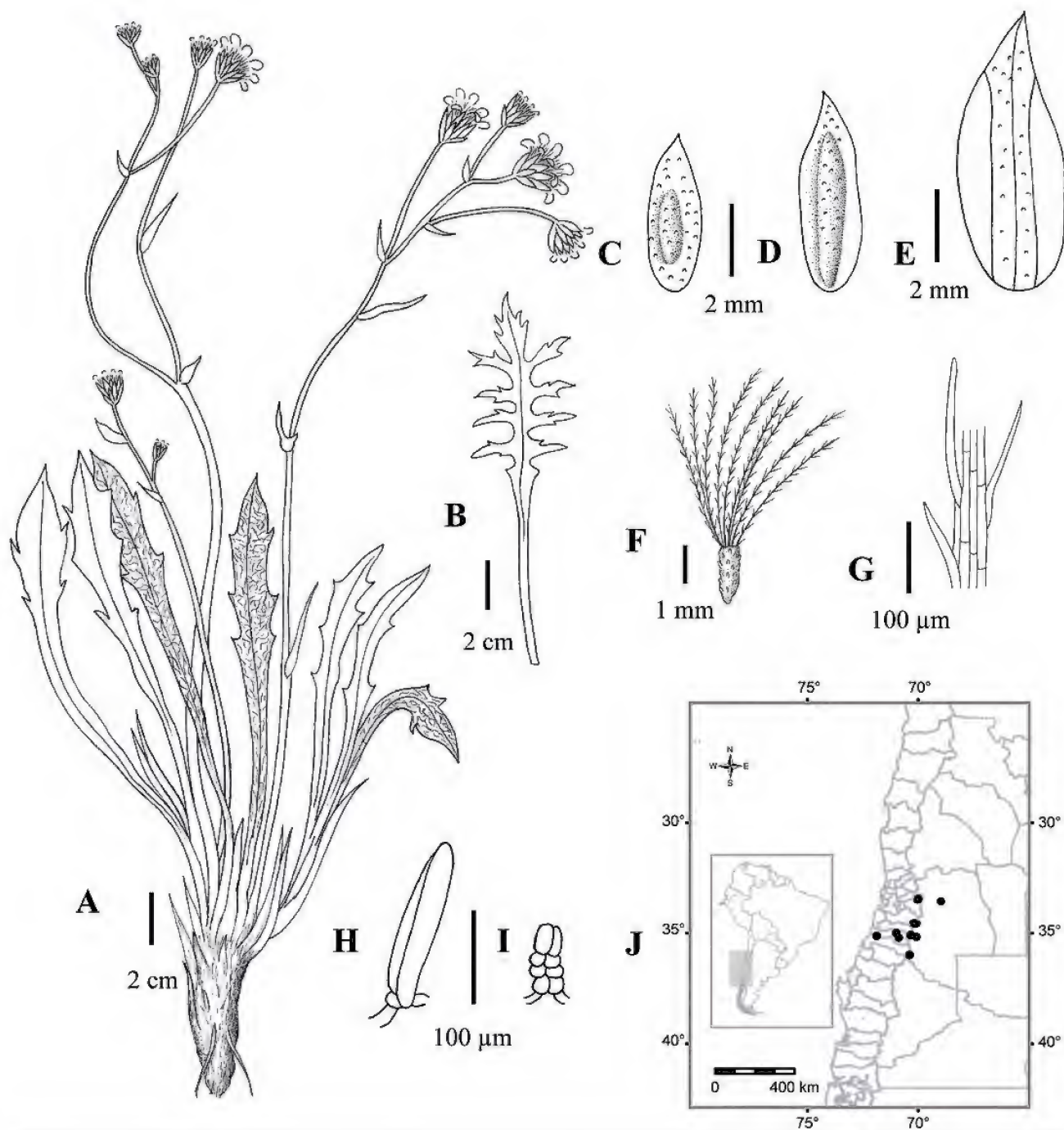


FIGURE 23. *Leucheria gayana* (J. Rémy) Reiche. A. Habit. B. Leaf partite. C. Outer phyllary of the involucre. D. Middle phyllary of the involucre. E. Inner phyllary of the involucre. F. Fruit and pappus. G. Detail of pappus bristle. H. Fruit twin trichome. I. Fruit biseriate glandular biseriate trichome. J. Distribution map. A, G–I, *Fabris & Zuloaga 8508* (LP); B, *Ruiz Leal 2063* (LP); C–F, *Ruiz Leal 27394* (LP).

CHILE. REGION LIBERTADOR BERNARDO O'HIGGINS: Prov. Cachapoal: Rengo, hacienda Las Nieves, naciente río Claro, sobre Campamento Arboleda, 28 Dec 2005, *L. Faúndez & B. Larrain* 1106 (CONC). Prov. Colchagua: San Fernando, Baños del Flaco, 19 Dec 1928, *R. Pérez Moreau s.n.* (LP 75418); Vegas del Flaco, 18 Jan 1964, *C. Marticorena & O. Matthei* 724 (CONC, LP); cordillera de El Flaco, 23 Jan 1948, *E. Barros* 7437 (LP); San Fernando, Alto Huemul, 3 Jan 2006, *L. Faúndez & B. Larrain* 1281 (CONC). REGION MAULE: Prov. Curicó: Potrero Grande, 21 Jan 1927, *E. Barros* 2654 (LP), 30 Jan 1928, *E. Barros* 2642 (LP); Lomas Blancas, 25 Jan 1947, *E. Barros* 7429 (LP), 26 Jan 1947, *E. Barros* 7428 (LP); laguna Planchón, Dec 1971, *O. Zöllner* 6289 (CONC). REGION METROPOLITANA DE SANTIAGO: Prov. Cordillera: cajón Morales, Jan 1989, *Saavedra & Pauchard* 270 (CONC); cajón de Morales, de Panimavidas a Laguna, Jan 2002, *S. Teillier & Márquez* 5305 (CONC), Dec 2001, *S. Teillier & Márquez* 5231 (CONC); cajón de Morales, ladera del cerro Ruhillas, Jan 2002, *S. Teillier & Márquez* 5304 (CONC).

13. *Leucheria gilliesii* Hook. & Arn., Companion Bot. Mag. 1: 35. 1835, *nom. nov. pro L. hieracioides* D. Don. Figure 24.

Leuceria hieracioides D. Don, Philos. Mag. Ann. Chem. 11: 389. 1832, *nom. illeg. hom.*, non Cassini, 1828 (= *Leucheria hieracioides* Cass.). ARGENTINA, Prov. Mendoza, CHILE, Prov. Curicó; at that time the borders between the countries were unclear: "Both flanks of the Chilean Andes, between 32°–35°, Herb. Gillies." Type: ARGENTINA, Prov. Mendoza: Andes of Mendoza, cerro de la Polcura, *J. Gillies s.n.* (lectotype designated here: K000504386 digital image!, photograph LP!; islectotype: OXF, photograph LP!). Cerro de la Polcura, Andes of Mendoza, *J. Gillies* 124 (islectotype: E00253123 digital image!).

Leuceria garciana J. Rémy, Fl. Chil. 3: 381. 1847, *syn. nov.* "Se cría en los cerros de Talcaregue, provincia de Colchagua . . ." *Lasiorbiza garciana* (J. Rémy) Kuntze, Revis. Gen. Pl. 1: 350. 1891, *syn. nov.* Type: CHILE, Prov. Colchagua: In saxis subandinis Talcaregué, Feb 1831, *C. Gay* 314 (lectotype designated here: P00732648 digital image!; islectotypes: P00732647, P00732649, P00732650 digital images!).

Leuceria nivea Phil., Anales Univ. Chile 87: 104. 1894. "Inveni in Andibus provinciae Talca, loco dicto 'Blanquillo', in basi occidentali summi montis Descabezado, februario 1879." Type: CHILE, Prov. Talca: Blanquillo, al pie del Monte Descabezado, Feb 1897, *F. Philippi* 2246 (holotype: SGO 60500!, photograph LP!; isotype: LP 75329!, LP002165 digital image!).

Perennial herbs, caulescent, 12–60 cm high. Leaves linear-oblancoolate, oblanceolate, oblong, entire, dentate or lobate, lobes entire, linear to triangular, midvein cylindrical, tomentose or araneose adaxially, lanose abaxially; lower leaves rosulate to subrosulate, 2.5–20 cm long, 0.4–1 cm wide, sometimes disposed in more than one bundle by sprouting rhizome, petiole winged. Capitula 2–30, grouped in lax cymes forming a lax corymbiform or racemiform synflorescence. Involucres 7–10(–11) mm high, 3-seriate, phyllaries sometimes purplish, glandular-pubescent and lanose, outer phyllaries shorter, spiny at the apex, planate,

intermediate phyllaries concave, margins scarious, inner phyllaries planate, scarious margins; paleaceous phyllaries present. Florets 30–70, corolla white, pink, blue, lilac. Cypselae pilose, twin trichomes 200–215 µm long, few glandular biseriate trichomes. Pappus 4–5.5 mm long, isomorphic, bristles wide and flat, long plumose, cilia 300–450 µm long, white.

DISTRIBUTION AND ECOLOGY. Chile, in Araucanía, Maule, Metropolitana de Santiago, and O'Higgins (type) Regions, and Argentina, in Mendoza and Neuquén Provinces; it grows on rocky slopes, among sclerophyllous shrubs, from 1,000 to 3,000 masl.

PHENOLOGY. Collected in flower from December to April.

VERNACULAR NAMES. Unknown.

NOTES.

1. *Leucheria gilliesii* constitutes a replacement name (*nomen novum*) of the illegitimate name *Leuceria hieracioides* D. Don because even when it was not explicitly proposed as such, it complies with Article 6.13 of the International Code of Nomenclature (ICN; Turland et al. 2018). The protolog of *L. gilliesii* cites the replaced synonym: "L. hieracioides, Gill.- Don in Phil. Mag. (April 1832) p. 389 . . . (not of Cass.)."
2. *Leucheria garciana* is considered here a synonym of *L. gilliesii* because they are morphologically indistinguishable and overlap in their geographic distribution. The leaves of the type specimens of *Leucheria garciana* are very variable in size, their margins vary from entire to slightly dentate, and there is also variation in the degree of pubescence. The size of the involucre (8–13 mm high, 13–20 mm wide in *L. gilliesii* and 6–9 mm high, 9–13 mm wide in *L. garciana*), a character used in the distinction of both species (Crisci 1976), shows a continuous gradient of variation, and hence, it is taxonomically unsuitable.
3. This species is recognized by its long, linear-oblancoolate, completely white pubescent leaves.
4. *Leucheria gilliesii* resembles *L. lithospermifolia* (see Notes for *L. lithospermifolia*), *L. gayana* (see Notes for *L. gayana*), and *L. viscida*. However, the similarity is only in habit and leaf outline. The leaves of *L. viscida* are stiff and pectinate, whereas those of *L. gilliesii* are soft, and the pappus of *L. viscida* has bristles with somewhat widened and slightly yellowish apex (vs. completely white bristles that are not widened at the apex in *L. gilliesii*).

ADDITIONAL SPECIMENS EXAMINED. ARGENTINA.

PROVINCE MENDOZA: dept. Malargüe, Valle Hermoso, 12 Jan 1970, *A. Ruiz Leal* 27312 (LP), 12 Mar 1972, *H. Lagiglia* 668 (LP); Río Salado superior, entre Paso del Arveljalito y Paso de los Morros, 27 Jan–4 Feb 1892, *F. Kurtz* 7118 (LP). PROVINCE NEUQUÉN: dept. Minas, cordillera del Viento, cruzada de Tricao Malal al cajón de Butaló, 3 Feb 1964, *O. Boelcke et al.* 11637 (BAB, LP); Paso del Macho, 26 Jan 1970, *O. Boelcke et al.* 13914 (BAB, LP).

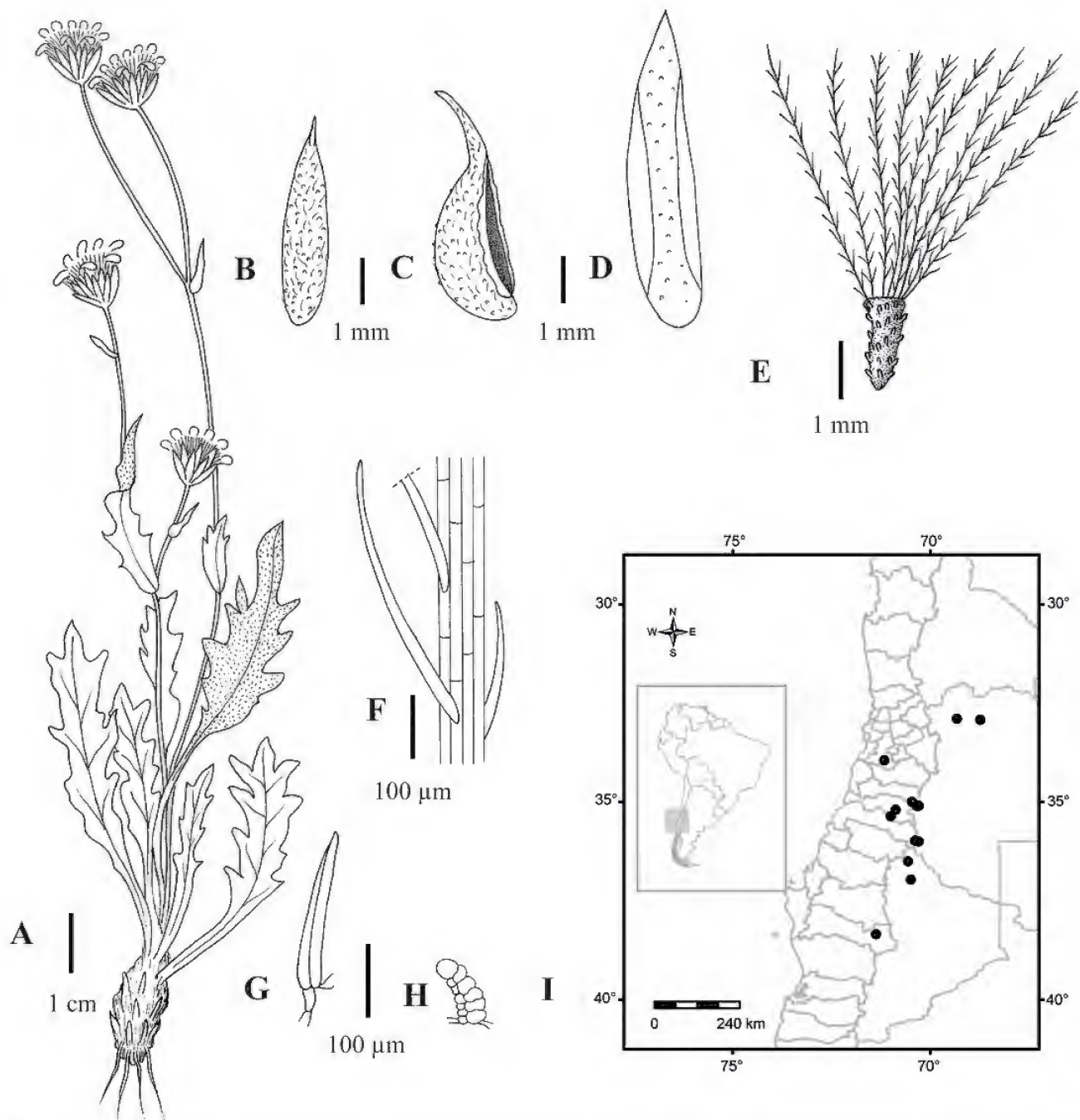


FIGURE 24. *Leucheria gilliesii* Hook. & Arn. A. Habit. B. Outer phyllary of the involucre. C. Middle phyllary of the involucre (lateral view). D. Inner phyllary of the involucre. E. Fruit and pappus. F. Detail of pappus bristle. G. Fruit twin trichome. H. Fruit glandular biseriate trichome. I. Distribution map. A, F–H, Boelcke *et al.* 11637 (LP); B–E, Ruiz Leal 27312 (LP).

CHILE. REGION ARAUCANÍA: Prov. Malleco: Termas de Río Blanco, Jan 1959, G. Montero O. 5932 (CONC). REGION MAULE: Prov. Curicó: dept. Curicó, camino de Curicó a Vergara, 3 km antes del límite, 11 Mar 1967, C. Marticorena & O. Matthei 1061 (CONC, LP); Laguna El Planchón, Apr 1969, O. Zöllner 3371 (LP); Potrero Grande, Lomas Blancas, 25 Jan 1947, E. Barros 7430 (LP); laguna de Teno, Mar 1973, C. Marticorena et al. 5 (CONC), Mar 1967, C. Marticorena & O. Matthei 887 (CONC). Prov. Talca: laguna del Maule, Jan 1943, H. Behn s.n. (CONC 21218); Reserva Nacional Alto de Vilches, cerro Peine, Jan 2000, Finot & López 1668 (CONC). REGION METROPOLITANA DE SANTIAGO: Prov. Melipilla: Reserva Nacional Roblería del Cobre de Loncha, Feb 2004, Brownless et al. 1268 (CONC).

14. *Leucheria glacialis* (Poepp. ex Less.) Reiche, Anales Univ. Chile 116: 202. 1905. *Lasiorrhiza glacialis* Poepp. ex Less., Syn. Gen. Compos.: 407. 1832. "(Pöpp. Mss. N. 911) . . . Chile. Pöppig." *Chabraea glacialis* (Poepp. ex Less.) DC., Prodr. 7: 59. 1838. *Perdicium glaciale* Poepp. ex DC., Prodr. 7: 59. 1838, *nom. nud. pro syn.* Type: CHILE, Prov. Biobío: In Chil. Austr. Alpin. Frigidis, in latere austr. mont. Igniv. Antuc. [Antuco], (8–8500'), Feb 1827–1829, E. F. Poeppig Coll. pl. Chil. III 217, *Diar.* 911 (lectotype designated by Crisci [1976:110]: P!, P00732654 digital image!; isoelectotypes: BR0000005329762, F0050541F, G-DC00492962, HAL0113160, M0030662, NY00180488, NY00180489, W0017704 digital images!). Chile, austral Andes, *Poeppig s.n.* (isoelectotype: P00732655 digital image!). Figure 25.

Leucheria [*Leuchaeria*] *paniculata* Poepp. ex Less., Syn. Gen. Comp.: 403. 1832, *syn. nov.* "Pöppig in Chile." *Perdicium paniculatum* Poepp. ex DC., Prodr. 7: 57. 1838, *nom. nud. pro syn.* *Lasiorrhiza paniculata* (Poepp. ex Less.) Kuntze, Revis. Gen. Pl. 1: 350. 1891, *syn. nov.* Type: CHILE, Prov. Biobío: In Chil. Austr. Camp. Lapidis. Circum Antuco, Decrbr. Lecta. E. F. Poeppig Coll. Pl. Chil. III 218, *Diar.* 740 (lectotype designated by Crisci [1976:81]: P!, P00732664 digital image!; isoelectotypes: B [destroyed] photograph F 160561, BR0000005782628, G-DC00492937, HAL0113162, M0030664 digital images!, NY!, NY00180617, NY00180619, W1889-0291338 digital images!).

Chabraea thermanum Phil., Anales Univ. Chile 21: 380. 1862. "Supra thermas de Chillan dietas reperi." *Lasiorrhiza thermanum* (Phil.) Kuntze, Revis. Gen. Pl. 1: 350. 1891, *syn. nov.* *Leucheria thermanum* (Phil.) Phil., Verh. Deutsch. Wiss. Vereines Santiago 2: 203. 1892, *syn. nov.* *Leucheria thermanum* (Phil.) Reiche, Anales Univ. Chile 116: 201. 1905, *comb. superfl.* Type: CHILE, Prov. Diguillín: Baños de Chillán, Feb 1892, R. Philippi s.n. (lectotype designated by Crisci [1976:108]: SGO 60512; isoelectotypes: SGO 439031, LP 002167!).

Leucheria araucana Phil., Anales Univ. Chile 87: 105. 1894. "Orn. Carlos Rahmer in Araucania l. d. Nitrito invenit." *Leucheria thermanum* (Phil.) Phil. var. *araucana* (Phil.) Reiche, Fl. Chile 4: 424. 1905. Type: CHILE, Prov. Malleco: Araucania, 1887, C. Rahmer s.n. (lectotype designated by Crisci [1976:110]: SGO 604981, photograph LP!; isoelectotypes: LP 753891, LP002140 digital image!, SGO 439491).

Leucheria longifolia Phil., Anales Univ. Chile 87: 106. 1894. "Habitat in Andibus prov. Valdiviae; e loco Loli dicto attulit Otto Philippi." *Leucheria glacialis* (Poepp. ex Less.) Reiche var. *longifolia* (Phil.) Cabrera, Fl. Patagónica 8(7): 370. 1971. Type: CHILE, Prov. Valdivia: Andes de Valdivia, Loli, O. Philippi s.n. (holotype: SGO 605011, photograph LP!). Cordillera de Valdivia, Loli, Feb 1887, O. Philippi 1119 (isotype: LP!).

Leucheria discolor Phil., Anales Univ. Chile 87: 107. 1894. "In Andibus valdivianis l. d. Queñi reperit januario 1887 Otto Philippi." Type: CHILE, Prov. Valdivia: Queñi, Feb 1887, O. Philippi s.n. (holotype: SGO 604961, photograph LP!).

Leucheria magna Phil., Anales Univ. Chile 87: 108. 1894, *syn. nov.* "In valle fluminis Palena a doctore Federico Delfin lecta est." Type: CHILE, Prov. Aysén: Valle del Río Palena, F. Delfin s.n. (holotype: SGO 605031, photograph LP!).

Leucheria pauciflora Phil., Anales Univ. Chile 87: 109. 1894. "Habitat in Andibus provinciae Curicó l. d. Cipreses. Manuel Vidal." Type: CHILE, Prov. Curicó: Andes de Curicó, en los Cipreses, M. Vidal s.n. (holotype: SGO 604941, photograph LP!).

Leucheria stricta Phil., Anales Univ. Chile 87: 109. 1894. "Habitat in valle fluminis Palena, ubi aestate 1887 invenit orn. Fr. Delfin." *Lasiorrhiza stricta* (Phil.) Macloskie, Rep. Princeton Univ. Exp. Patagonia, Botany 8(2): 891. 1906. Type: CHILE, Prov. Aysén: Valle del río Palena, verano 1887, F. Delfin s.n. (holotype: SGO 605021, photograph LP!).

Perennial herbs, caulescent, stems sometimes fistulose, 25–150 cm high. Leaves oblanceolate, obovate, dentate, lobulate, pinnatifid, pinnatisect, lobes dentate to lobate, oblong, obovate, oblanceolate, ovate-triangular, sometimes the lower lobes entire, oblong, triangular, midvein cylindrical, occasionally slightly planate, slightly glandular-pubescent and araneose- to lanose-pubescent adaxially, tomentose or lanose abaxially; lower leaves rosulate, 4–40 cm long, 1.8–8 cm wide, disposed in one or more than one bundle by sprouting rhizome, petiole winged. Capitula 5–60, grouped in lax or dense cymes, sometimes glomerulose, forming a lax racemiform or paniculiform synflorescence. Involucres 10–14 mm high, 3-seriate, phyllaries glandular- or strigose-pubescent, sometimes lanose- or araneose-pubescent, outer phyllaries shorter, planate, medium phyllaries conspicuously concave, sometimes margins scarious, intermediate phyllaries somewhat concave, inner phyllaries concave or planate, margins scarious; paleaceous phyllaries present. Florets 25–50, corolla white, blue, pink, lilac, violet. Cypselae pilose, twin trichomes 225–300 µm long, glandular biseriate trichomes, sometimes few and appressed to the fruit surface. Pappus 7–10 mm long, isomorphic, bristles thin and cylindrical, plumose, cilia 225–400 µm long, white.

DISTRIBUTION AND ECOLOGY. Chile, in Araucanía, Aysén, Biobío, Los Ríos, Maule, Ñuble, and O'Higgins Regions, also cited for Los Lagos Region (Ríos et al. 2018), and in Argentina, in Chubut, Mendoza, Neuquén, and Río Negro Provinces; it grows in the *Nothofagus* forest and up in the mountains, in humid places, on rocky slopes, on lake shores, and beneath the canopy of other plants, from 550 to 2,500 masl (reaching 2,850 masl; Weddell 1855).

PHENOLOGY. Collected in flower from December to March.

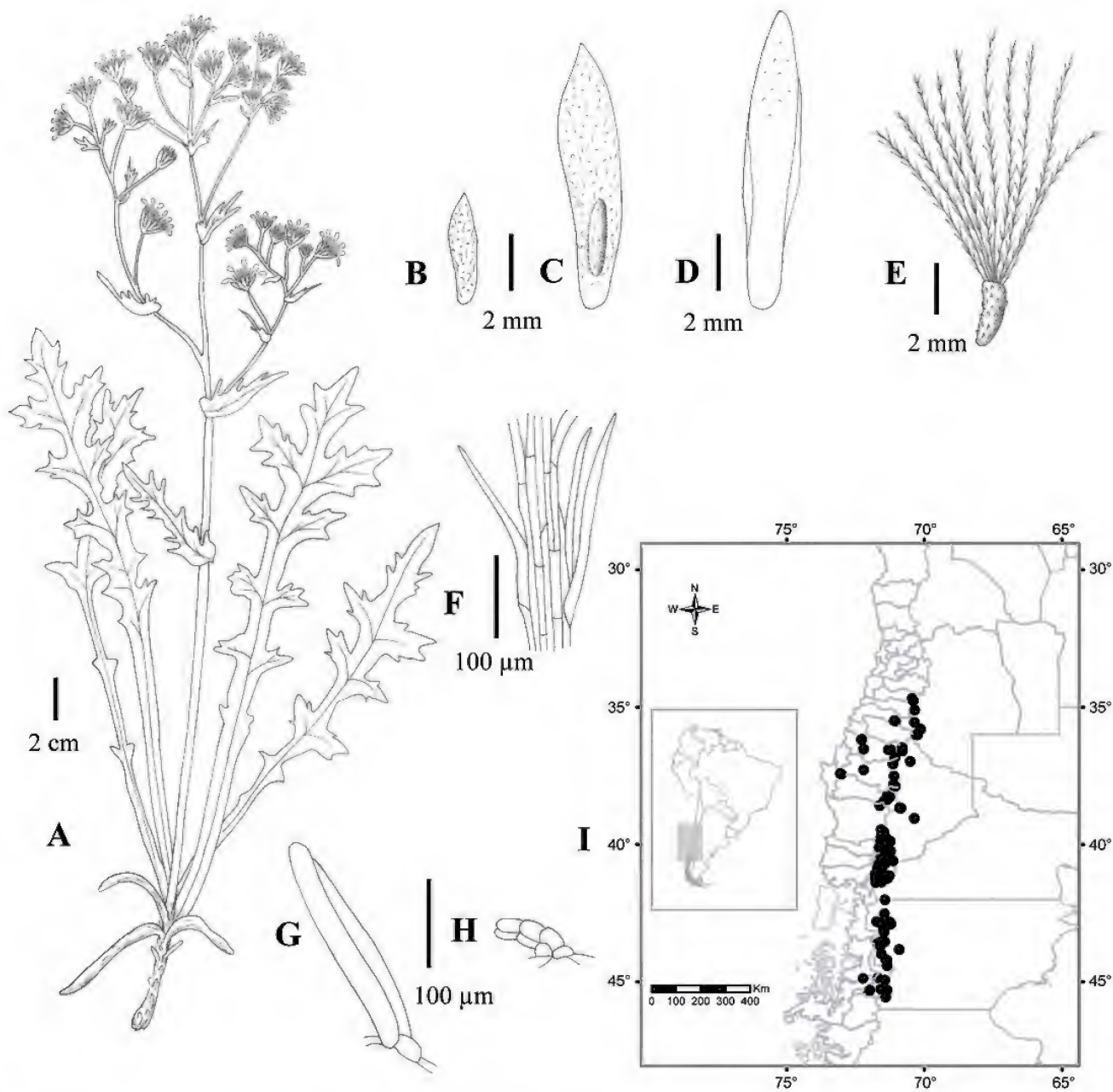


FIGURE 25. *Leucheria glacialis* (Poepp. ex Less.) Reiche. A. Habit. B. Outer phyllary of the involucre. C. Middle phyllary of the involucre. D. Inner phyllary of the involucre. E. Fruit and pappus. F. Detail of pappus bristle. G. Fruit twin trichome. H. Fruit glandular biseriate trichome. I. Distribution map. A, Cabrera 20471 (LP); B–E, Maldonado B. 149 (LP); F–H, Iglesias & Soetbeer 32 (LP).

VERNACULAR NAMES. *Leuceria rosada grande* (Hoffman 1978).

NOTES.

1. The analysis of many specimens of *Leucheria glacialis* shows that this species presents a wide spectrum

of variation in the leaf shape and pubescence, in the degree of the capitula tightening in the synflorescence, and in the number of capitula of the synflorescence. For example, lax and tight cymes are found in the same specimen (e.g., Cabrera *et al.* 23204, LP). This

variation provided evidence for considering *L. glacialis*, *L. paniculata*, and *L. thermarum* to be synonyms here. The name *Leucheria thermarum* was published in 1892, whereas *L. paniculata* and *L. glacialis* were both legitimate names published in 1832, having equal priority of name. We adopt here the name *Leucheria glacialis* following Article 11.5 of the ICN (Turland et al. 2018).

- Leucheria glacialis* resembles *L. apiifolia* (see Notes for *L. apiifolia*), with both species having their distribution in Curicó Province, Chile. Occasionally, some specimens of *L. glacialis* are glandular-pubescent (e.g., *Boelcke et al.* 11614) like *L. apiifolia*, and in these cases, the 7–10 mm long pappus (vs. 4–5 mm long in *L. apiifolia*) is helpful for differentiation. Some glandular-pubescent specimens from Talca, however, have an intermediate pappus that is 6 mm long. In such cases, the lanose or araneose adaxial face of the leaf allows recognition of the specimens as *L. glacialis*. This species also resembles *L. integrifolia*, but the latter usually has entire to scarcely partite leaves, whereas the leaves of *L. glacialis* are more profoundly partite.
- In the field, the plants of this species are sticky (*Lahitte* 442, BAB, LP; personal observations), they smell like chocolate (*Vervoorst* 5809, BAB), and the flowers are fragrant (*Boelcke et al.* 13866, LP; personal observations).
- The label of the herbarium specimen *Onelli s.n.* (BAB 5892) cites a locality of the department of Gaiman, in the province of Chubut, Argentina. This area does not constitute the typical western montane environment of *L. glacialis*. We consider this locality to be doubtful, and therefore, it was not included in the distribution map of this species.

ADDITIONAL SPECIMENS EXAMINED. ARGENTINA.

PROVINCE CHUBUT: dept. Cushamen, Cholila, Feb 1945, *R. Martínez Crovetto* 3030 (BAB, LP); dept. Futaleufú, Colonia 16 de Octubre, Jan 1937, *R. Lahitte* 442 (BAB, LP); arroyo de los Saltos, Jan 1937, *R. Lahitte* 451 (BAB, LP); río Corcovado, Mar 1900, *N. Illin s.n.* (BAB 1916); Corcovado, 1901, without leg. (LP), Jan 1900, *N. Illin s.n.* (BAB); cerro Colorado, 12 Jan 1948, *A. Krapovickas* 4072 (BAB); de Corcovado a Tecka, 24 Jan 1973, *A. Cabrera et al.* 23204 (LP); estancia Pampa, 50 km al W de Tecka, 23 Jan 1947, *A. Soriano* 2475 (BAB, LP); lago Futaleufú, 20 Mar 1972, *A. Cabrera* 21962 (LP), 13 Jan 1970, *A. Cabrera* 20471 (CONC, LP); Esquel, La Hoya, 18 Jan 1972, *A. Cabrera* 21957 (LP), 26 Feb 1975, *A. Cabrera et al.* 25961 (LP); dept. Gaiman, Valle Pozos y Villegas, Jan 1902, *C. Onelli s.n.* (BAB 5892); dept. Languineo, Carrenleufú, 1 Mar 1900, *N. Illin s.n.* (LP); dept. Río Senguier, río Unión, lago La Plata, 9 Jan 1969, *A. Iglesias & M. Soetbeer* 32 (LP); lago Fontana, en el aserradero, 19 Jan 1948, *A. Krapovickas* 4223 (BAB); valle del lago Blanco 15 Jan 1902, *J. Koslowsky* 259 (BAB); dept. Tehuelches, Río Pico, estancia Tromenco, 7 Feb 1958,

F. Vervoorst 5809 (BAB); Tromen, Río Pico, 27 Feb 1955, *J. Hunziker* 6900 (BAB); río Frías, Putrachoique, Jan 1899, *N. Illin s.n.* (BAB 1907); 44°24'S, 71°22'W, 25 Jan 1902, 650 m, *J. Hogberg s.n.* (BAB). Without locality: cordillera, Apr 1901, *C. Burmeister* 2126 (BAB); Exp. Cremonesi, 1894/1895, without leg. (LP 6010, 6011); flora de la cordillera, 16 Oct 1896, *Moréteau s.n.* (LP 5999), *J. Frey s.n.* (LP 6001); Dec 1900, *C. Burmeister s.n.* (BAB). PROVINCE MENDOZA: dept. Malargüe, Las Loicas, Jan 2005, *F. Luebert & S. Teillier* 2279 (CONC); Alto valle de Calmuco, 14 Feb 1942, *A. Burkart et al.* 14407 (LP). PROVINCE NEUQUÉN: dept. Huiliches, lago Tromen, 24 Mar 1939, *A. Cabrera* 5141 (LP); lago Huechulafquen, subida al cerro de los Angeles, Parque Nacional Lanín, 7 Jan 1948, *G. Dawson & H. Schwabe* 2586 (BAB); Parque Nacional Lanín, costa N del lago Huechulafquen, 2 km E, 13 Feb 1974, *M. Correa et al.* 5547 (BAB); lago Carilafquen, 8 Feb 1948, *G. Dawson & H. Schwabe* 2684 (BAB); dept. Lácar, Paso Córdoba, 22 Jan 1971, *A. Cabrera* 21215 (LP pro parte), 21216 (LP); cerro Colorado, without date, *J. Diem* 24 (LP); Paso Villarino, 1896, *S. Roth s.n.* (LP 6000); lago Lácar, 1896, *S. Roth s.n.* (LP 5998); San Martín de los Andes, 7 Feb 1941, *A. Bridarolli* 2228 (LP); cerro Chapelco, 16 Feb 1968, *A. Cabrera & J. Crisci* 19176 (CONC, LP), 13 Feb 1972, *J. Crisci* 518 (LP), 29 Jan 1970, *A. Cabrera* 20559 (CONC, LP), 16 Jan 1973, *A. Cabrera et al.* 23048 (LP); dept. Los Lagos, Traful, estancia La Primavera, 17 Feb 1928, *Castellanos s.n.* (LP 75281); ruta 234, lago Nahuel Huapi, en borde arroyo La Estacada, 18 Jan 2000, *M. Bonifacio et al.* 236 (LP); Chapelco, cañadón Trabunco, 28 Feb 1971, *Schajovskoy s.n.* (LP); camino a cascada Santa Ana, brazo Rincón, without date, *Gam. s.n.* (LP); Pichi Traful, 14 Feb 1972, *J. Crisci* 529 (LP); El Portezuelo, 6 Feb 1977, *S. Crespo & R. Giangualani* 2091 (BAB); dept. Minas, cordillera del Viento, cruzada de Tricao Malal al cajón de Butaló, 3 Feb 1964, *O. Boelcke et al.* 11614 (BAB, LP); Cajón de los Chenques, 25 Jan 1970, *O. Boelcke et al.* 13866 (BAB, LP); lagunas Epulafquen, 20 Jan 1935, *A. Ragonese* 184 (LP); lagunas Epulafquen, Aduana vieja, 15 Jan 1964, *O. Boelcke et al.* 10880 (BAB, LP); confluencia de los ríos Pichi-Neuquén y Neuquén, Cajón de las Yeguas, 23 Jan 1970, *O. Boelcke et al.* 13741 (BAB); dept. Ñorquín, Copahue, 13 Jan 1963, *A. Ruiz Leal* 22423 (LP); Copahue, al S de las termas, 12 Jan 1982, *R. Rossow* 884 (BAB, CONC); Termas de Copahue, 18 Feb 1940, *A. Cabrera* 6238 (LP); Caviahue, 14 Jan 1973, *A. Cabrera et al.* 22953 (LP); dept. Picunches, paso Pino Hachado, cerro Tres Hermanas, 17 Jan 1982, *R. Rossow et al.* 1202 (BAB); entre el límite E de Araucarias y la aduana Pino Hachado, 10 Jan 1994, *C. Villagrán et al.* 7825 (CONC); refugio del ejército, a 4 km de la frontera con Chile, zona de Pino Hachado, 15 Jan 1960, *M. Layaga* 3259 (LP); dept. Zapala, Laguna Blanca, without date, *C. Spegazzini s.n.* (LP). PROVINCE RÍO NEGRO: dept. Bariloche, lago Nahuel Huapi, *O. Buchtien* 1343 (BAF); cerro Catedral, Feb 1954, *A. Cabrera* 11522 (LP); cerro Belvedere, 21 Mar 1934, *R. Spegazzini* 127 (BAB); Parque Nacional Nahuel Huapi, without date, *A. Donat* 44 (LP); cerro Ñireco, 9 Mar 1941, *J. Neumeyer* 490 (LP), *J. Neumeyer s.n.* (LP 27052); cerro Otto,

17 Feb 1972, *J. Crisci* 533, 534 (LP), 7 Jan 1935, *A. Cabrera & M. Job* 148 (LP); cerro López, 10 Feb 1948, *A. Corte* 227 (LP), 17 Feb 1972, *J. Crisci* 537 (LP), 15 Jan 1935, *A. Cabrera & M. Job* 319 (LP), 30 Jan 1934, *A. Burkart* 6120 (LP); lago Roca, extremo W, 21 Jan 1952, *O. Boelcke & M. Correa* 6043 (BAB); lago Mascardi, 19 Mar 1939, *A. Cabrera* 5028 (LP); El Bolsón, cerro Piltriquitrón, 18 Jan 1973, *A. Cabrera et al.* 23061 (LP); valle Río Alerce, 16 Jan 1952, *O. Boelcke & M. Correa* 5653 (BAB); valle río Frías, 13 Jan 1952, *O. Boelcke & M. Correa* 5523 (BAB).

CHILE. REGION ARAUCANÍA: Prov. Cautín: Curacautín, termas Río Blanco, 16 Feb 1936, *G. Montero* O. 2712 (CONC, LP), 9 Jan 1935, *G. Montero* O. 2069 (CONC, LP), Jan 1948, *A. Pfister s.n.* (CONC 7890, 7911), Jan 1962, *Montero* 6457 (CONC); cordillera de Lonquimay de los Andes, Jan 1937, *A. Hollermayer* 742 (LP), 748 (CONC); refugio volcán Llaima, Mar 1972, *Duek & Inostroza s.n.* (CONC 43645, 43646). Prov. Malleco: Lonquimay, Jan 1930, *A. Hollermayer s.n.* (CONC 104943), 447b (CONC); Lonquimay, camino a Paso de Pino Hachado, 10 Jan 1948, *A. Pfister s.n.* (BAB); volcán Lonquimay, *Sparre & Constance* 10911 (CONC); camino de Curacautín a Lonquimay, Dec 1968, *M. Ricardi & C. Marticorena* 5636 (CONC); río Blanco, Dec 1952, *Schwabe s.n.* (CONC 13732), Dec 1937, *Milner s.n.* (CONC 24406); Sierra Nevada, frente a laguna Conguillio, Feb 1979, *Schlegel* 7139 (CONC); cordillera de Las Raíces, Jan 1984, *O. Matthei & Bustos* 110 (CONC); cerro Coiquén, frente a Quirihue, Dec 1998, *O. Matthei* 665 (CONC); Parque Nacional Nahuelbuta, Jan 2001, *Weinberger* 1453 (CONC). **REGION AYSÉN:** Prov. Aysén: Coyhaique, 18 Jan 1946, *E. Barros* 6150 (LP), Jan 1958, *G. Montero* O. 5458 (CONC); Fundo Los Coigües, 15 Jan 1946, *E. Barros* 6151 (LP); Reserva Forestal Coihaique Alto, Mar 1977, *Schlegel* 6988 (CONC); Coihaique, Parque Nacional Trapananda, Mar 1986, *Schlegel* 8076 (CONC); fundo Los Mallines, Feb 1934, *H. Behn s.n.* (CONC 21235); Los Mallines, near Balmaceda, 31 Jan 1943, *R. Maldonado* B. 65 (LP); Balmaceda, 18 Feb 1943, *R. Maldonado* B. 149 (LP). **REGION BIOBÍO:** Prov. Biobío: volcán Copahue, Jan 1896, *Neger s.n.* (CONC 93792); Los Ángeles, Nov 1952, *Silva s.n.* (CONC 13268). **REGION LIBERTADOR BERNARDO O'HIGGINS:** Prov. Colchagua: Termas del Flaco, 21 Apr 1973, *O. Zöllner* 6455 (CONC). **REGION LOS RÍOS:** Prov. Valdivia: Neltume, Reserva Huilo Huilo, valle del río Pillanleufú, Feb 2011, *S. Teillier et al.* 6882 (CONC); Remeco, Jan 1977, *Schlegel* 6952 (CONC). **REGION MAULE:** Prov. Curicó: Lelico, 11 Dec 1939, *E. Barros* 2631 (LP); laguna de Teno, Feb 1967, *F. Behn s.n.* (CONC 44735). Prov. Linares: Reserva Nacional Bellotos del Melado, Jan 2000, *A. Humaña et al.* 20163 (CONC). Prov. Talca: Laguna del Maule, 5 km antes de la frontera internacional, 30 Jan 1963, *O. Boelcke et al.* 10345 (BAB, LP); entre laguna del Maule y Paso Pehuenche, Feb 1963, *M. Ricardi et al.* 961 (CONC); cuesta Los Cóndores, Jan 2005, *F. Luebert & S. Teillier* 5533 (CONC). **REGION ÑUBLE:** Prov. Diguillín: Termas de Chillán, 5 Feb 1936, *A. Cabrera* 3623 (LP), Feb 1935, *F. Ruiz s.n.* (LP 75279), Feb 1933, *P. Jaffuel* 2056,

2806 (CONC), Feb 1931, *Deltor* 2112 (CONC), Jan 1945, *A. Pfister s.n.* (CONC 4039); Termas de Chillán, Pirigallo, 6 Feb 1936, *A. Cabrera* 3649 (LP), entre el hotel Pirigallo y la zona de estacionamiento para las termas, 22 Jan 2004, *J. Panero & B. Crozier* 8411 (CONC); Termas de Chillán, valle de Las Nieblas, Feb 1989, *Niemeyer & Fernández* 8934 (CONC), Mar 1968, *M. Ricardi* 5601 (CONC); Termas de Chillán, arriba de las fumarolas, Jan 2004, *J. Panero & B. Crozier* 8415 (CONC); Baños de Chillán, Mar 1927, *E. Werdermann* 1334 (CONC); Termas de Chillán, Valle Hermoso a Aguas Calientes, Mar 2001, *C. Baeza & N. Finot* 3681 (CONC); Reserva Nacional Ñuble, al E de avanzada Cuatro Juntas, Feb 2008, *E. Teneb* 555 (CONC). **REGION UNKNOWN:** Manantial, 1879, without leg. (LP 6077).

15. *Leucheria graui* Katinas, M. C. Tellería, & Crisci, Novon 18: 366. 2008. Type: CHILE, Prov. Talca: Laguna del Maule, rocas al O de la laguna, 2,300 m, 25 Jan 1981, *J. Grau* 2839 (holotype: LP!). Figure 26.

Perennial herbs, caulescent, 15–30 cm high. Leaves oblong, elliptic, pinnatisect, lobes crenate-lobate, narrowly oblong, midvein wide, planate, glandular-pubescent in both faces; lower leaves rosulate, 6–17 cm long, 1.5–8 cm wide, petiole winged. Capitula 3–10, grouped in lax cymes forming a lax corymbiform synflorescence. Involucre 10–13 mm high, 2- or 3-seriate, phyllaries subequal, planate, with red lines, outer phyllaries with margins scarious and shortly ciliate, glandular-pubescent, intermediate phyllaries with margins scarious, glandular-pubescent, inner phyllaries scarious, glabrous; paleaceous phyllaries absent. Florets 50–60, corolla yellow. Cypselae papillose, typical and atypical twin trichomes (4 hair cells), 50–90 µm long. Pappus 6–6.6 mm long, isomorphic, bristles wide and flat, long plumose, cilia ~500 µm long, white.

DISTRIBUTION AND ECOLOGY. *Leucheria graui* is known only from the type location, in rocky places around Laguna del Maule in Maule Region, Chile, at about 2,300 masl.

PHENOLOGY. Collected in flower in January; it probably blooms from December to March.

VERNACULAR NAMES. Unknown.

NOTES.

1. This species is distinctive because of its glandular pubescence in the vegetative parts, yellow corollas, and an exclusive type of twin trichome in the fruits, with four trichome cells instead of the typical two.
2. It resembles *L. apiifolia* (see Notes for *L. apiifolia*).

16. *Leucheria hieracioides* Cass., Dict. Sci. Nat. (ed. 2) 55: 392. 1828. "Cet échantillon, qui paroît avoir été recueilli dans le Chili par M. d'Urville, se trouve parmi les Synanthérées innommées de l'herbier de M. Mérat." *Lasiorbiza* [*hieraciodes*] *hieracioides* (Cass.) Kuntze, Revis. Gen. Pl. 1: 350. 1891. Type: CHILE: Chili, *D'Urville s.n.* (holotype: P!, P00732660 digital image!). Figure 27.

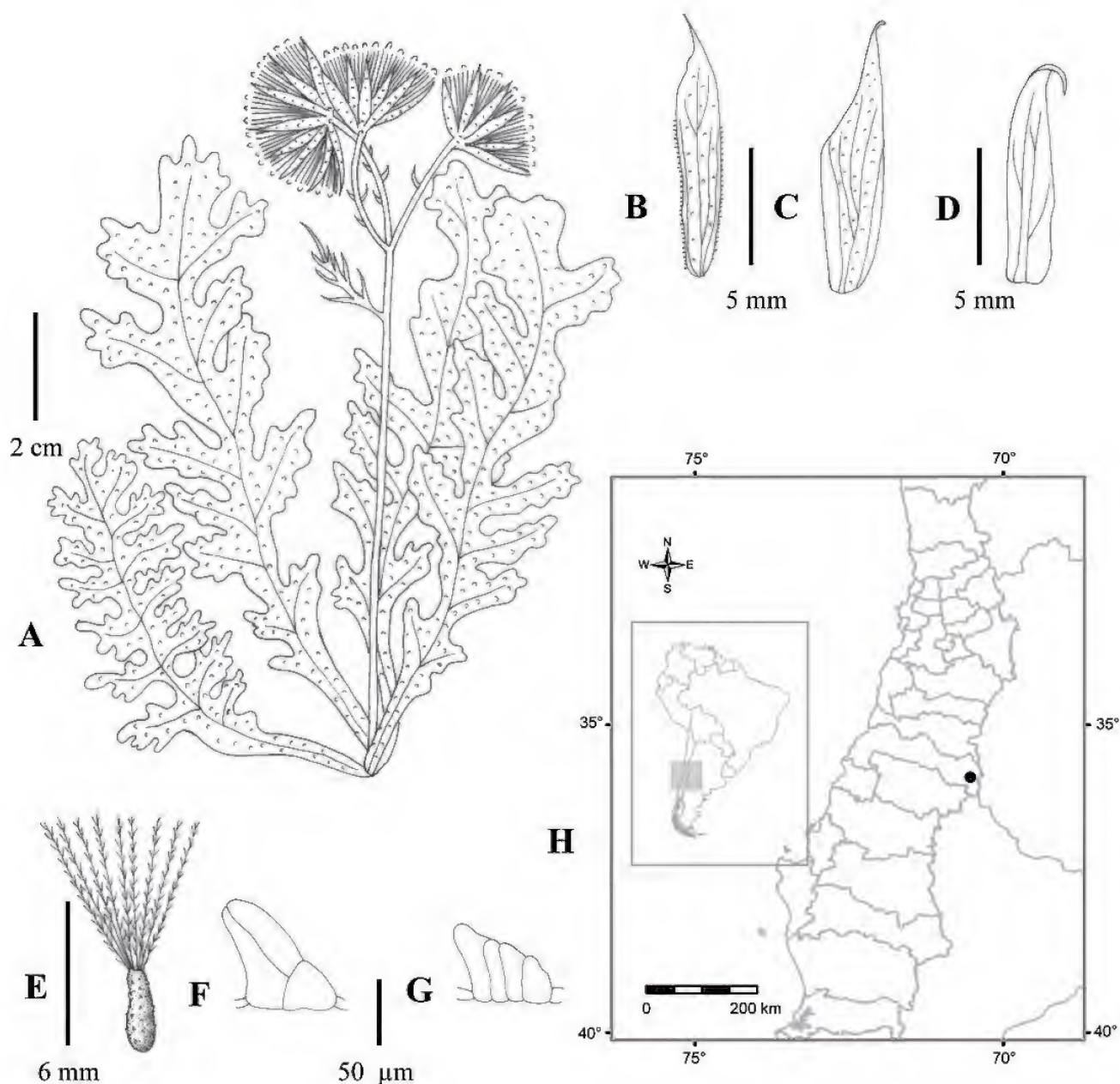


FIGURE 26. *Leucheria graui* Katinas, M. C. Tellería, & Crisci. A. Habit. B. Outer phyllary of the involucre. C. Middle phyllary of the involucre. D. Inner phyllary of the involucre. E. Fruit and pappus. F. Fruit typical twin trichome. G. Fruit atypical twin trichome. H. Distribution map. Redrawn from Katinas et al. (2008c).

Chabreaa prenanthoides Bertero, Merc. Chil.: 601. 1829, *nom. nud. pro syn.*

Leuceria acanthoides D. Don, Trans. Linn. Soc. Bot. 16: 213. 1830. CHILE:

"In Chili. Ruiz et Pavon." *Lasiorbiza [acanthodes] acanthoides* (D. Don) Kuntze, Revis. Gen. Pl. 1: 350. 1891. Type: Not found, not in MA

(M. R. Noya, Real Jardín Botánico de Madrid, personal communication), P (<https://science.mnhn.fr/institution/mnhn/collection/p/item/search/>), or BM (Rance Prakash, The Natural History Museum, London, personal communication). Chili, in pascuis petrosis mont. La Leona,

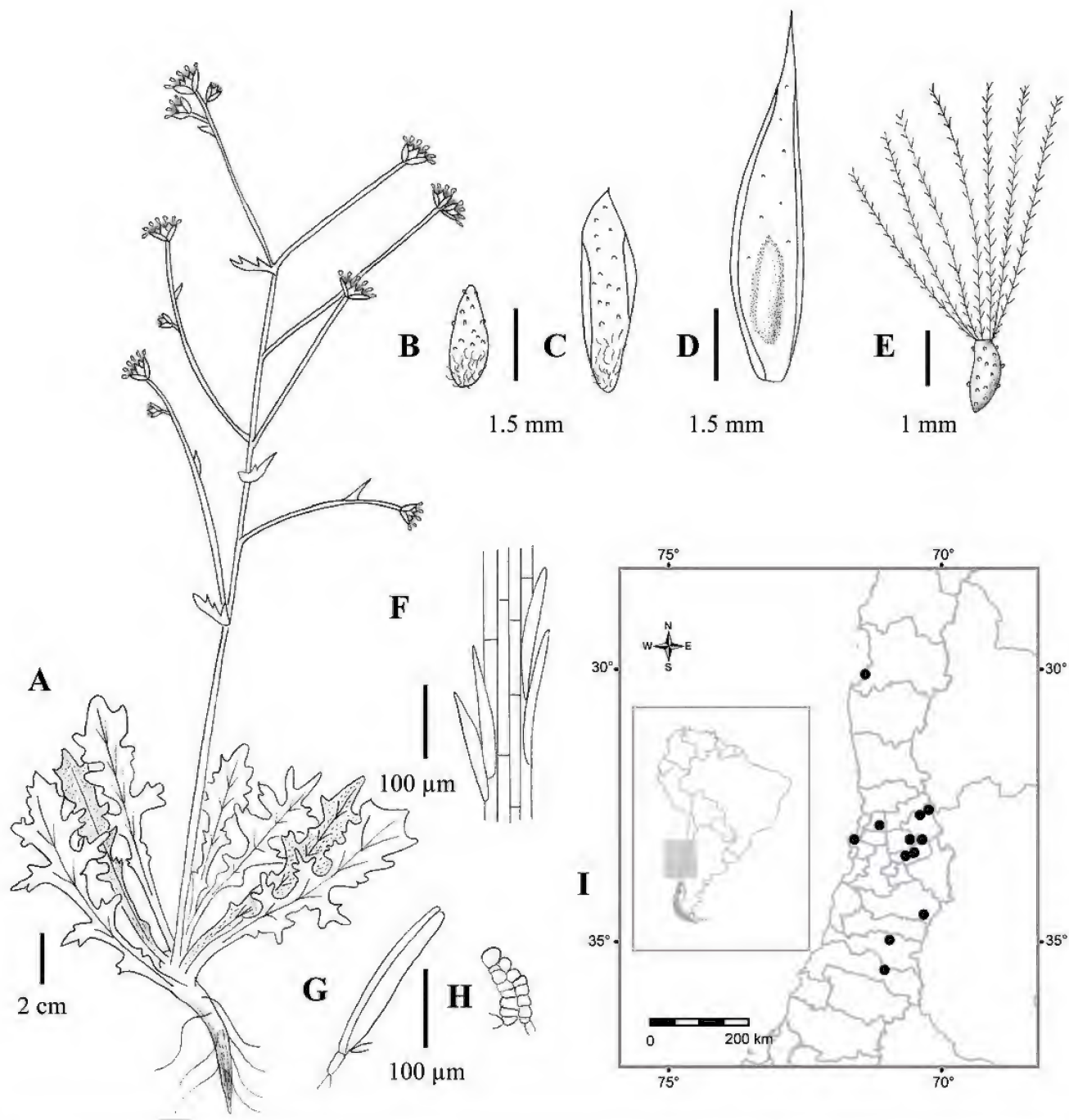


FIGURE 27. *Leucheria hieracioides* Cass. A. Habit. B. Outer phyllary of the involucre. C. Middle phyllary of the involucre. D. Inner phyllary of the involucre. E. Fruit and pappus. F. Detail of pappus bristle. G. Fruit twin trichome. H. Fruit glandular biseriate trichome. I. Distribution map. A, F–H, Marticorena & Weltdt 615 (LP); B–E, Barros 2630 (LP).

Sep 1829, C. Bertero 161 (neotype designated here: P!, P00732662 digital image!, G-DC, G-DC00492972 digital image!). This specimen was cited by de Candolle (1838:57) in the description of *Leucheria acanthoides*.

Leucheria divaricata D. Don, Trans. Linn. Soc. Bot. 16: 214. 1830. "In Chili ad Coquimbo. Caldcleugh." Type: CHILE, Prov. Santiago: Santiago de Chile, A. Caldcleugh s.n. (holotype: G, [destroyed?] photograph F 28862!). The label does not coincide exactly with the original locality, Coquimbo, but the photograph coincides with the specimen description and has a label that says "*Leucheria divaricata* D. Don" in the same handwriting. CHILE, Metropolitana de Santiago Region: Cuesta de Chacabuco, 16 Nov 1970, C. Marticorena & E. Weltdt 615 (epitype designated here: CONC, LP).

Perennial herbs, caulescent, 50–100 cm high. Leaves oblanceolate, obovate, pinnatisect, thistle-like or lyrate with the upper lobe bigger than the lateral ones, lobes dentate, lacerate, obovate, midvein cylindrical, glandular-pubescent and araneose-pubescent adaxially, tomentose abaxially; lower leaves rosulate, 10–25 cm long, 2.5–3 cm wide, petiole winged. Capitula more than 20, grouped in lax or dense cymes forming a lax, divaricate, paniculiform synflorescence. Involucres (6–)7–10 mm high, 3-seriate, phyllaries glandular-pubescent and lanose, more lanose at the base, commonly apex reddish, outer phyllaries shorter, planate, medium and inner phyllaries concave, margins scarious; paleaceous phyllaries present. Florets 55–90, corolla blue, lilac. Cypselae pilose, twin trichomes 200–225 µm long, glandular biserial trichomes. Pappus 5–6 mm long, isomorphic, bristles thin and cylindrical, scabrid to barbellate, cilia ~165 µm long, white.

DISTRIBUTION AND ECOLOGY. Chile, in Coquimbo (type), Maule, Metropolitana de Santiago, O'Higgins, and Valparaíso Regions; frequent in the sclerophyllous and deciduous matorral and forest (García 2010) and in the communities of *Peumus boldus* Molina, *Lomatia hirsuta* (Lam.) Diels, *Cryptocarya alba* (Molina) Looser, and *Nothofagus macrocarpa* (A. DC.) F. M. Vázquez & R. A. Rodr., up to 2,000 masl.

PHENOLOGY. Collected in flower from November to February.

VERNACULAR NAMES. Unknown.

NOTES.

1. *Leucheria hieracioides* is distinctive because of its lyrate-lacerate, thistle-like, and white pubescent leaves, synflorescences with many capitula, and usually divaricate branches. It resembles *L. bridgesii*, but *L. hieracioides* has leaves with all or most of the lobes being dentate to partite and 7–10 mm high involucres, and *L. bridgesii* has leaves in which all or most of the lobes are entire, and the involucres are commonly less than 7 mm high.
2. Don (1830) mentioned yellow corollas in the description of *L. divaricata*, but according to Reiche (1905), this color could be an artifact of the specimens' desiccation.
3. De Candolle (1838) indicated that *L. hieracioides* Cass. inhabits sandy coasts of Valparaíso, citing "Bert!" Bertero

(1829), however, did not indicate this type of habitat in any of his descriptions of species of *Leucheria* (sub *Chabraea*), and there is no indication in the herbarium specimens' labels of *L. hieracioides* growing in sand dunes.

4. *Leucheria hieracioides* resembles *L. coerulescens* (see Notes for *L. coerulescens*).

5. See Notes for *L. tomentosa* regarding Bertero's specimens.

ADDITIONAL SPECIMENS EXAMINED. CHILE.

REGION LIBERTADOR BERNARDO O'HIGGINS: Prov. Cachapoal: Termas de Cauquenes, Nov 1952, Pfister s.n. (CONC 13122). Prov. Colchagua: cajón de Los Helados, Jan 1951, M. Ricardi s.n. (CONC 10188). **REGION MAULE:** Prov. Curicó: Teno, La Montaña, 17 Jan 1943, E. Barros 3908 (LP). Prov. Linares: Los Hualles, 2 Feb 1939, E. Barros 2630 (LP); Reserva Nacional Bellotos del Melado, Jan 2000, A. Humaña et al. 20089 (CONC), Dec 1999, M. Arroyo et al. 99-4808, 99-4901, 99-4973, 99-6150, 99-6185 (CONC). Prov. Talca: cordillera de Talca, 28 Dec 1936, E. Barros 2621 (LP); cordillera de Talca, El Picazo, 28 Dec 1936, E. Barros 244 (LP). **REGION METROPOLITANA DE SANTIAGO:** Prov. Chacabuco: Altos de Chicauma, camino a Cascadas, Nov 2002, N. García et al. 3576 (CONC); Altos de Chicauma, sendero al Tranque, Nov 2002, N. García et al. 3469, 3471 (CONC); Baños de Colina, Sep 1939, Milner s.n. (CONC 21225). Prov. Santiago: cerro Manquehue, 17 Nov 1960, G. Kausel 4626 (LP); entre Pérez Caldera y Maitenes, Dec 1954, C. Skottsberg & Sparre 11080 (CONC); Santuario de la Naturaleza Yerba Loca, estero Manzanito, Nov 1999, M. Kalin & A. Humaña 99-5273 (CONC). **REGION VALPARAÍSO:** Prov. Quillota: cerro de la Campana Chica, 29 Dec 1937, E. Barros 254 (LP). Prov. Valparaíso: camino a Laguna Verde, Jan 1940, K. Behn s.n. (CONC 21228).

17. *Leucheria integrifolia* (Phil.) Crisci, Darwiniana 16: 628. 1971. *Chabraea integrifolia* Phil., Linnaea 28: 716. 1856, non *Chabraea integrifolia* Phil., 1872, nom. illeg. hom. (sub *Leucheria suaveolens* (D'Urv.) Speg.). "In Andibus depart. Linares invenit orn. Germain." *Lasiobiza integrifolia* (Phil.) Kuntze, Revis. Gen. Pl. 1: 350. 1891, syn. nov. *Leucheria lithospermifolia* (Poepp. ex Less.) Reiche subsp. *integrifolia* (Phil.) Grau & Zinneker, Bot. Jahrb. Syst. 108: 231. 1987, syn. nov. Type: CHILE, Prov. Linares: Andes de Linares, P. Germain s.n. (holotype: SGO 60510!, photograph LP!). Figure 28.

Perennial herbs, caulescent, up to 110 cm high. Leaves oblanceolate, entire, mucronate, dentate-cripsed to pinnatifid, lobes entire, midvein cylindrical, tomentose adaxially, lanose abaxially; lower leaves rosulate, 9–30 cm long, 1.5–3 cm wide, petiole winged. Capitula more than 40, grouped in lax or dense cymes forming a lax paniculiform synflorescence. Involucres 10–15 mm high, 3-seriate, phyllaries glandular-pubescent and lanose, outer phyllaries shorter, planate, intermediate phyllaries concave, margins scarious or not scarious, inner phyllaries planate, margins scarious; paleaceous phyllaries present. Florets

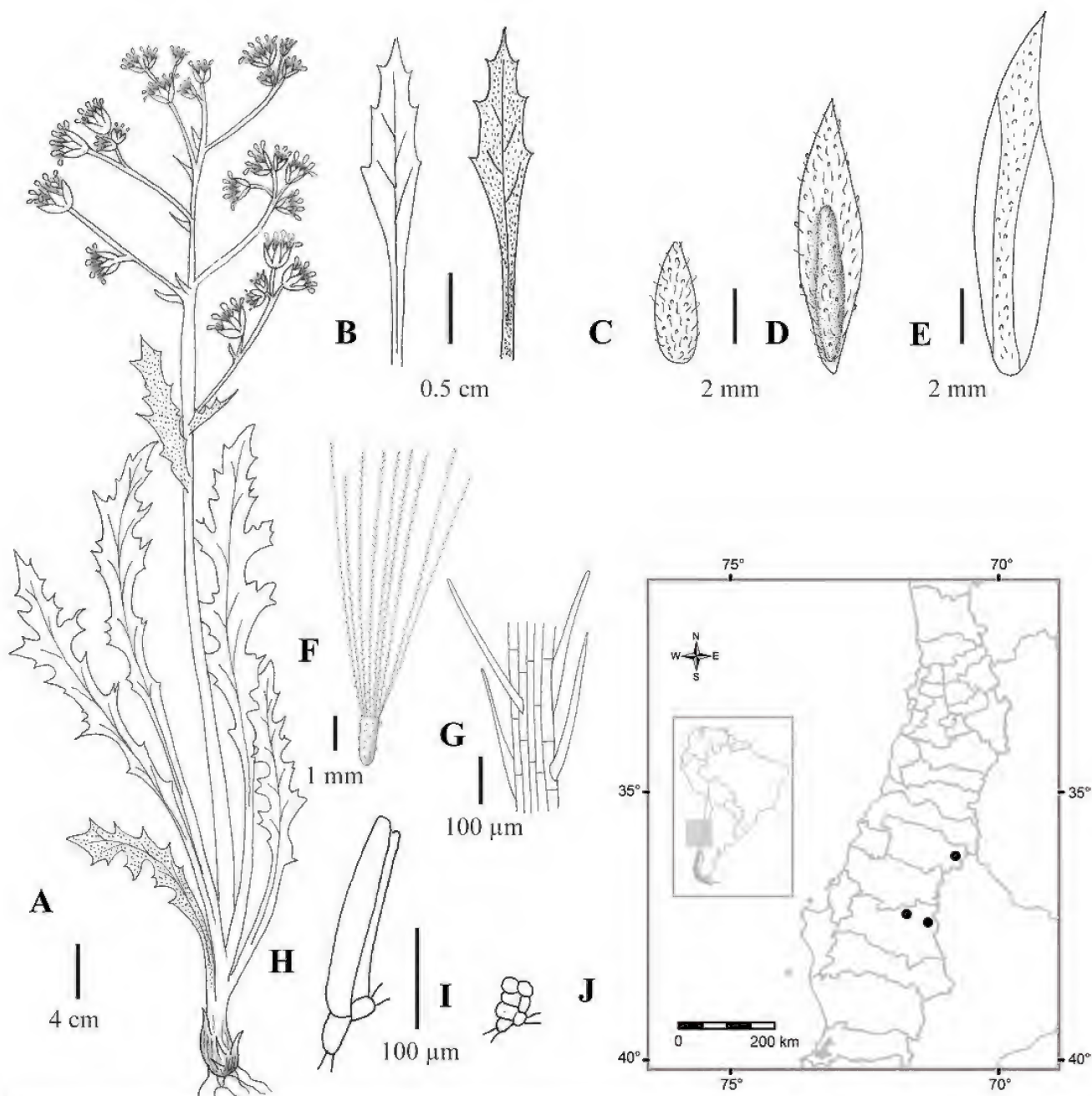


FIGURE 28. *Leucheria integrifolia* (Phil.) Crisci. A. Habit. B. Slightly dentate leaf, adaxial surface (left) and abaxial surface (right). C. Outer phyllary of the involucre. D. Middle phyllary of the involucre. E. Inner phyllary of the involucre. F. Fruit and pappus. G. Detail of pappus bristle. H. Fruit twin trichome. I. Fruit glandular biserial trichome. J. Distribution map. A, G–I, Zöllner 5549 (LP); B–F, Zöllner 2461 (LP).

25–35, corolla white, lilac. Cypselae pilose, twin trichomes 180–200 µm long, few and short glandular biseriate trichomes. Pappus 9–11 mm long, isomorphic, bristles wide and flat, plumose, cilia 300–350 µm long, white.

DISTRIBUTION AND ECOLOGY. This species has been scarcely collected in Chile, in Maule and Biobío Regions, and is also cited for Ñuble Region (Ríos et al. 2018); found on stream shores, from 1,000 to 1,500 masl.

PHENOLOGY. Collected in flower from December to March.

VERNACULAR NAMES. Unknown.

NOTES.

1. *Leucheria integrifolia* was established as a synonym of *L. lithospermifolia* by Reiche (1905) and Cabrera (1950) and later as a subspecies of *L. lithospermifolia* by Grau (1987). Crisci (1976), however, treated these species as separate entities, and that criterion is followed here. Among the most conspicuous differences between these species are the paniculiform synflorescence with more than 40 capitula in *L. integrifolia* (vs. synflorescences with 4–30 capitula in *L. lithospermifolia*), 9–11 mm long pappus bristles (vs. 5–6.5 mm long), and the bigger capitula (10–15 mm high vs. 6–10 mm in *L. lithospermifolia*). This phenomenon in which two species are morphologically very close but one is the “bigger” version of the other species, mostly evidenced in the size of the capitula, is common in *Leucheria*. In addition, the specimens of *L. lithospermifolia* analyzed lack paleaceous phyllaries.
2. Even when the specific epithet of *L. integrifolia* refers to entire leaves, there is variation in the degree of blade division, with blades varying from entire to slightly dentate and pinnatifid.

ADDITIONAL SPECIMENS EXAMINED. CHILE.

REGION BIOBÍO: Prov. Biobío: sierra de Polcura, cerca río Laja, 1 Feb 1972, O. Zöllner 5549 (LP); dept. La Laja, faldeo E volcán Antuco, próximo a Refugio Universitario, 22 Jan 1969, O. Boelcke et al. 6499 (BAB). **REGION MAULE:** Prov. Linares: precordillera, 20 Jan 1968, O. Zöllner 2461 (LP). Prov. Talca: laguna del Maule, río, Feb 1991, O. Zöllner 17469, 17500 (CONC).

18. *Leucheria lithospermifolia* (Poepp. ex Less.) Reiche, Anales Univ. Chile 116: 208. 1905. *Lasiorrhiza lithospermifolia* Poepp. ex Less., Syn. Gen. Compos.: 406. 1832. “Pöppig et Bertero legerunt in regno chilensi.” *Perdicium lithospermifolium* Poepp. ex Less., Syn. Gen. Compos.: 406. 1832, *nom. nud. pro syn.* *Chabraea lithospermifolia* (Poepp. ex Less.) DC., Prodr. 7: 60. 1838. Type: CHILE: In Chil. austr. pratin. alpin. frigidissimis Sierra Velluda (7500'), Andes de Antuco, E. F. Poeppig Coll. Pl. Chil. III 215, Diar. 849 (lectotype designated here: W1889-0291371 digital image!; isolectotypes: BR0000005329540, G-DC00492903, HAL0113159 digital images!, M!, M0030663 digital image!, NY!, NY00180492,

NY00180493 digital images!, P!, P00732665, P00732666, W0017678, W0017679 digital images!). Figure 29.

Leucheria volcanica Hook. & Arn., Companion Bot. Mag. 2: 42. 1836.

“Volcano of Antuco, S Chile, at an elevation of six thousand feet above the level of the sea, Mr. Reynolds. (n. 103).” Type: CHILE, Prov. Biobío: South Chile, found only on the volcano of Antuco, about 6,000 feet above the level of the river, *Reynolds 103* (holotype: K000504384!; isotypes: GH!, GH00009692, GH00009693, GH00009694, GH00009695 digital images!).

Perennial herbs, caulescent, 15–60 cm high. Leaves oblanceolate, linear-oblanceolate, entire, denticulate, slightly dentate or slightly lobed, lobes entire, linear-triangular, midvein cylindrical, tomentose in both faces but more abaxially, sometimes glabrous adaxially; lower leaves rosulate, sometimes subrosulate, 4–21 cm long, 0.8–2.5 cm wide, sometimes disposed in one or more than one bundle by sprouting rhizome, petiole winged. Capitula 4–30, grouped in lax or dense cymes forming a lax racemiform or paniculiform synflorescence. Involucres 6–10 mm high, 2- or 3-seriate, phyllaries concave or planate, glandular-pubescent and lanose, outer phyllaries shorter; paleaceous phyllaries absent. Florets 45–50, corolla white, pink, purple. Cypselae pilose, twin trichomes 250–300 µm long, glandular biseriate trichomes. Pappus 5–6.5 mm long, isomorphic, bristles wide and flat, plumose, cilia 275–450 µm long, white.

DISTRIBUTION AND ECOLOGY. Chile, in Araucanía, Biobío, Maule, and Ñuble Regions, and Argentina, in Neuquén and Mendoza Provinces (Katinas 2015); it grows in the Andes, on rocky soils, from 1,000 to 2,500 masl.

PHENOLOGY. Collected in flower from November to March.

VERNACULAR NAMES. Champa de hojas plateadas (Niemeyer & Fernández 8941, CONC).

NOTES.

1. Cabrera (1950) considered the specimen “La Cueva, 26 January 1887, without leg. (LP 75330)” the type of *Leucheria leucomalla* Phil., and this name a synonym of *L. lithospermifolia*. However, the type specimen of *L. leucomalla* was collected by Philippi in the Andes de Popeta (SGO-60499) and was included in the synonymy of *L. viscida* by Crisci (1976), a criterion followed here.
2. This species is distinguishable from the other species of *Leucheria* by its white lanose stems and phyllaries; long, entire or slightly lobed leaves; and capitula with involucres up to 10 mm high.
3. *Leucheria lithospermifolia* usually has entire leaves, but some specimens have lobulate leaves and thus resemble *Leucheria viscida*. In such cases these species can be differentiated because *L. viscida* has stiff, plurilobulate leaves (vs. soft and slightly lobed in *L. lithospermifolia*) and villose (vs. pilose) cypselae. *Leucheria lithospermifolia* can also resemble *L. gilliesii*, but the former has capitula without paleaceous phyllaries (vs. capitula with paleaceous phyllaries in *L. gilliesii*).

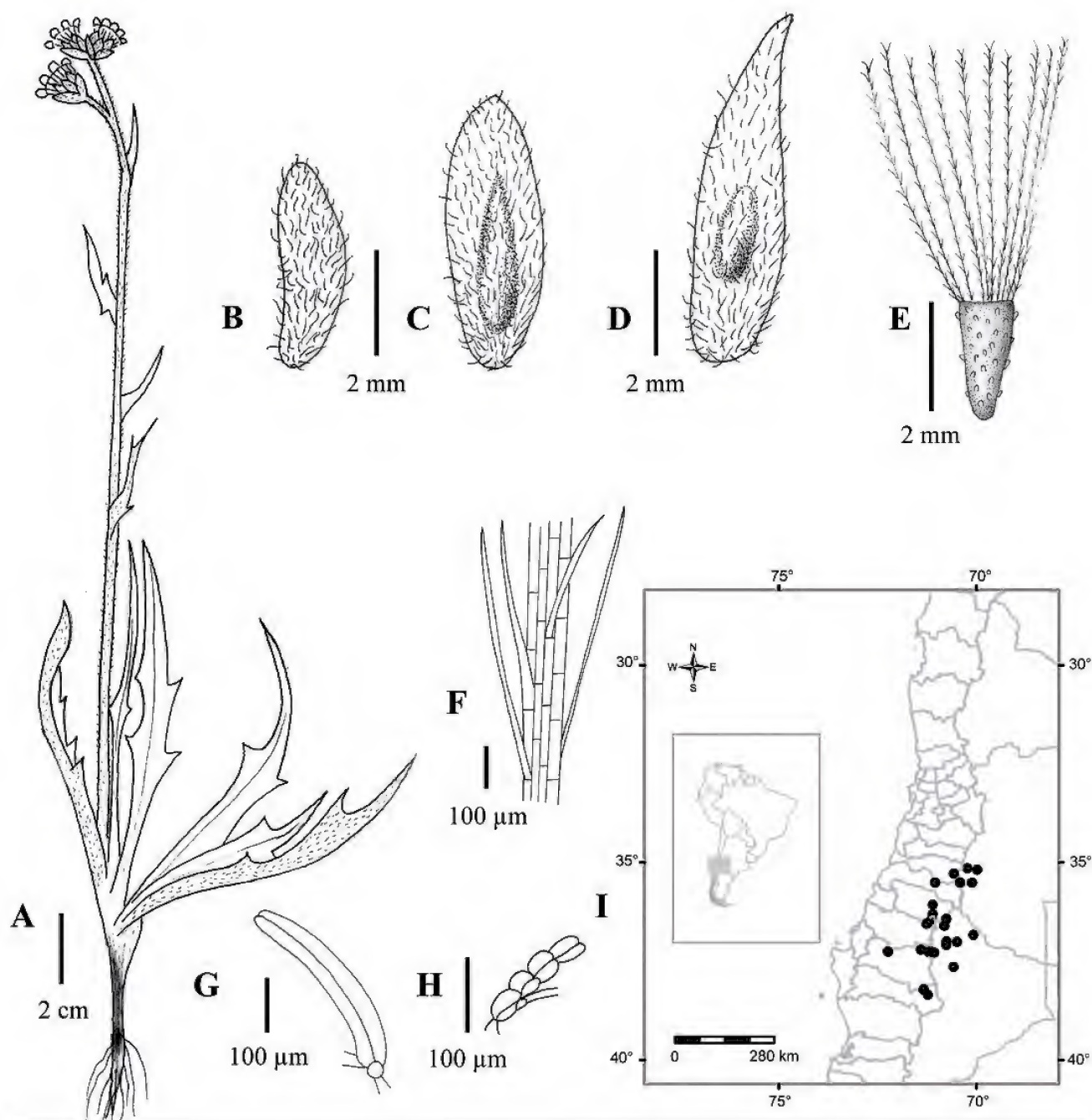


FIGURE 29. *Leucheria lithospermifolia* (Poepp. ex Less.) Reiche. A. Habit. B. Outer phyllary of the involucre. C. Middle phyllary of the involucre. D. Inner phyllary of the involucre. E. Fruit and pappus. F. Detail of pappus bristle. G. Fruit twin trichome. H. Fruit glandular biseriate trichome. I. Distribution map. A, LP 75330; B–E, Boelcke *et al.* 13623 (LP); F–H, Cabrera 19703 (LP).

It is possible that the analysis of more specimens of *L. lithospermifolia* may lead to finding capitula with paleaceous phyllaries, and then these two species would get closer morphologically, but for the moment we prefer to maintain them as different entities.

4. The specimen Ruiz & López 1089 (CONC) is peculiar in its very foliose stems from the base to the apex. In addition, the specimens analyzed from Reserva Nacional Los Bellotos del Melado (Linares Province, Maule Region, Chile) are young and have immature capitula; nonetheless, they can be assigned to *L. lithospermifolia* by their slightly lobed leaves and 6 mm high involucre with lanose phyllaries.
5. *Leucheria lithospermifolia* resembles *L. integrifolia* (see Notes for *L. integrifolia*).

ADDITIONAL SPECIMENS EXAMINED. ARGENTINA.

PROVINCE MENDOZA: dept. Malargüe, 8.8 km W of Los Molles, on road to Las Leñas, arroyo Las Amarillas, 6 Feb 1987, T. Stuessy et al. 10282 (LP); mirador de Valle Hermoso, 28 Jan 2004, A. Prina et al. 2398 (SI); Las Leñas, rumbo a Valle Hermoso, 10 Jan 2012, F. Ratto 103 (BAA). PROVINCE NEUQUÉN: dept. Minas, Las Ovejas, 18 Jan 1935, A. Ragonese 149 (LP); Pichi-Neuquén, puesto de Gendarmería, valle del Pichi-Neuquén, 22 Jan 1970, O. Boelcke et al. 13623 (BAB, LP); de Andacollo a Las Ovejas, 12 Jan 1973, A. Cabrera et al. 22877 (LP); Chacay Melehue-Cordillera del Viento, 13 Feb 1943, J. Frenguelli 509 (BAB, LP); lagunas Epu-lauquén, cerro al NW de las lagunas, 17 Jan 1964, O. Boelcke et al. 10959 (BAB); dept. Ñorquín, El Huacú, 24 Feb 1935, R. Spegazzini 33 (BAB, CONC).

CHILE. REGION ARAUCANÍA: Prov. Malleco: Alto Biobío, arroyo Paucunto, 6 Mar 1941, R. Maldonado B. 63 (LP); Lonquimay, 4 Feb 1930, A. Hollermayer 733 (CONC, LP), s.n. (CONC 104944); Rahue, Feb 1958, G. Montero O. 5516 (CONC). REGION BIOBÍO: Prov. Biobío: volcán Antuco, 22 Jan 1969, A. Cabrera 19703 (LP); dept. La Laja, faldeo NW volcán Antuco, 21 Jan 1969, O. Boelcke et al. 6383 (BAA, BAB); faldeo E volcán Antuco, próximo a Refugio Universitario, 22 Jan 1969, O. Boelcke et al. 6451, 6456 (BAB); faldeos volcán Antuco, Feb 1960, M. Ricardi & C. Marticorena 5190/1574 (CONC); laguna Laja, 2 Feb 1968, O. Zöllner 2459 (LP), Jan 1969, Ricardi & C. Marticorena 5743/1904 (CONC), Feb 1989, H. Niemeyer & Fernández 8941 (CONC); orillas de laguna La Laja, Jan 1969, M. Ricardi & C. Marticorena 5813/1974 (CONC); Los Pinos, extremo S laguna Laja, Nov 1951, F. Behn s.n. (CONC 10597); río Laja, El Abanico, Jan 1972, O. Zöllner 5526 (CONC, LP); Parque Nacional Laguna Laja, Los Zorros a Sierra Velluda, Jan 2001, C. Baeza et al. 3206 (CONC); Parque Nacional Laguna Laja, sector refugio Universidad, Jan 2001, C. Baeza et al. 3364 (CONC); Parque Nacional Laguna Laja, sector Lagartija, Jan 2001, C. Baeza et al. 3324 (CONC); paso Pichachén, límite Chile-Argentina, Jan 2001, C. Baeza et al. 3005 (CONC). REGION MAULE: Prov. Curicó: camino de Curicó a Paso Vergara, 21 km al interior de Los Queñes, 9 Mar 1967, C. Marticorena & O. Matthei 815 (LP); valle del río Teno, Dec 1971, O. Zöllner 5977

(CONC). Prov. Linares: camino retén Achibueno – Las Ánimas, cerro Maquis, Mar 1999, Ruiz & López 1089 (CONC); Reserva Nacional Bellotos del Melado, Jan 2000, A. Humaña et al. 20-088 (CONC), Dec 1999, M. Arroyo et al. 99-6207, 99-6242, 99-6259 (CONC); La Mina, río Maule, Jan 2009, N. García 4352 (CONC). Prov. Talca: Parque Nacional Radales Siete Tazas, sector Parque Inglés, Jan 2003, Gardner et al. 96 (CONC); río Maule, Jan 2005, F. Luebert & S. Teillier 2209 (CONC). REGION ÑUBLE: Prov. Diguillín: cordillera de Chillán, Mar 1874, without leg. (LP); Termas de Chillán, Jan 1954, Sparre & Smith 464 (CONC); nevados de Chillán, Los Coltrahues, Jan 2006, S. Pfanzelt 41 (CONC). Prov. Itata: cerros frente a El Roble, Mar 2002, R. Rodríguez et al. 5611 (CONC). Prov. Punilla: Monroy, Mar 2002, R. Rodríguez et al. 5466 (CONC). REGION UNKNOWN: La Cueva, 26 Jan 1887, without leg. (LP 75330).

19. *Leucheria meladensis* Katinas, Crisci, & A. E. Martic., Bol. Soc. Argent. Bot. 53: 95. 2018. Type: CHILE, Prov. Linares: Reserva Nacional Bellotos del Melado, 35°51'S, 71°06'W, 19 Dec 1999, M. T. K. Arroyo, P. MacPherson, M. Mihoc, A. Humaña & C. Valdivia 994988 (holotype: CONC 149089!). Figure 30.

Perennial herbs, caulescent, ~20 cm high. Leaves elliptic, obovate, entire, sometimes sparsely toothed, midvein cylindrical, slightly strigose adaxially, araneose-pubescent abaxially; lower leaves rosulate, 1.8–2.5 cm long, 0.7–1.3 cm wide, petiole 25–35 mm long, not winged. Capitula 2–4, grouped in lax cymes. Involucre 6–7 mm high, 2- or 3-seriate, phyllaries subglabrous, outer phyllaries shorter, planate, inner phyllaries concave, scarious; paleaceous phyllaries present. Florets ~20, corolla white or yellowish in dried specimens. Cypselae pilose, twin trichomes 135–250 µm long. Pappus 5–6 mm long, isomorphic, bristles thin and cylindrical, scabrid to barbellate, cilia 125–200 µm long, white.

DISTRIBUTION AND ECOLOGY. This species is known from only the type collection and is endemic to Reserva Nacional Los Bellotos del Melado in Chile, in Linares Province in the Maule Region. There is also a reference to a specimen of *L. meladensis* in Monte Oscuro, Curicó Province, Maule Region (N. Lavandero, Pontificia Universidad Católica de Chile, personal communication; confirmed by us with photographs of the specimens). It grows in the understory of the open, deciduous forest of *Cryptocarya alba* (Molina) Looser, *Lomatia hirsuta* (Lam.) Diels, and *Austrocedrus chilensis* (D. Don) Pic. Serm. & Bizarri, at ~1,080 masl.

PHENOLOGY. Collected in flower in December and February; it probably blooms from December to March.

VERNACULAR NAMES. Unknown.

NOTE. The unwinged petiole is a unique character of *L. meladensis*, allowing it to be readily differentiated from other members of *Leucheria*.

20. *Leucheria nutans* (J. Rémy) Reiche, Anales Univ. Chile 116: 208. 1905. *Chabraea nutans* J. Rémy, Ann. Sci. Nat.

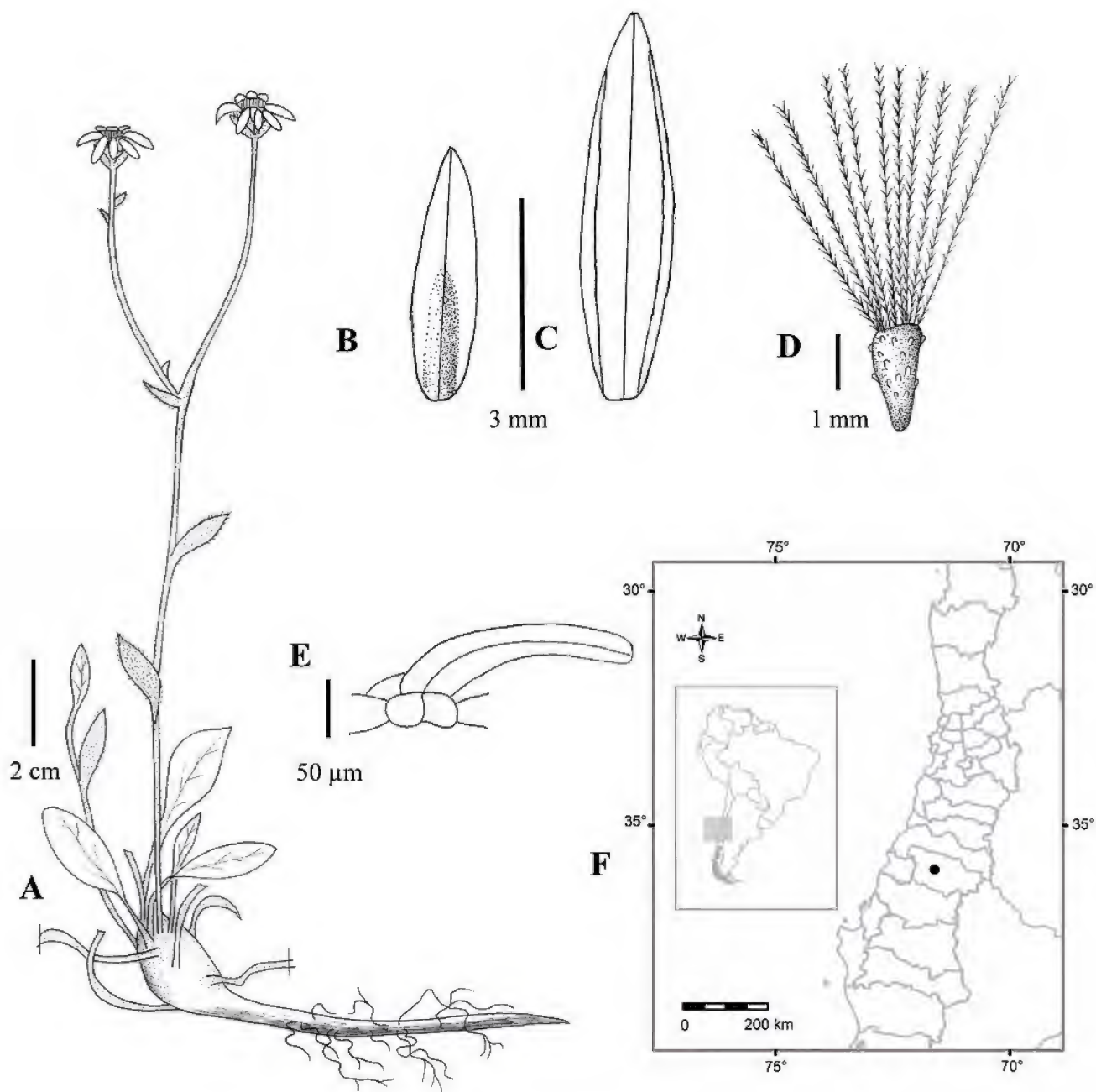


FIGURE 30. *Leucheria meladensis* Katinas, Crisci, & A. E. Martic. A. Habit. B. Outer phyllary of the involucre. C. Inner phyllary of the involucre. D. Fruit and pappus. E. Fruit twin trichome. F. Distribution map. Redrawn from Katinas et al. (2018).

(Paris), sér. 3, 12: 182. 1849. "Hab. in Cordilleris provinciae Conceptionis. (Cl. Gay!, in Herb. Mus. Paris.)." *Lasiorhiza nutans* (J. Rémy) Kuntze, Revis. Gen. Pl. 1: 350. 1891. Type: CHILE, Prov. Concepción: Chili, Conception, in montibus apricis provinciarum centralium, 1839, C. Gay 386 (lectotype designated by Crisci [1976:43]: Pl, P00732673 digital image!). Figure 31.

Chabraea poeppigii Phil., Linnaea 29: 4. 1858. "Prope Antuco invenit cl. Gay, uti ex herbario Chil. patet, ubi sub no. 885 servatur." *Lasiorhiza poeppigii* (Phil.) Kuntze, Revis. Gen. Pl. 1: 350. 1891, *syn. nov.*

Type: CHILE, Prov. Biobío: Antuco, C. Gay 885 (holotype: SGO 60519!, photograph LP!; isotype: P00732672 digital image!).

Clybatis volkmanii Phil., Anales Univ. Chile 41: 743. 1872. "El finado Volkman halló esta interesante planta en la Araucanía, probablemente en la cordillera de Nahuelbuta." Type: CHILE, Prov. Malleco: Araucanía, cordillera de Nahuelbuta, G. Volkman *s.n.* (holotype: SGO 60849!).

Perennial herbs, scapose, 13–47 cm high. Leaves oblanceolate, spatulate, entire, sinuate-dentate or dentate to lobate only at the apex, midvein cylindrical, glabrous or scarcely strigose in

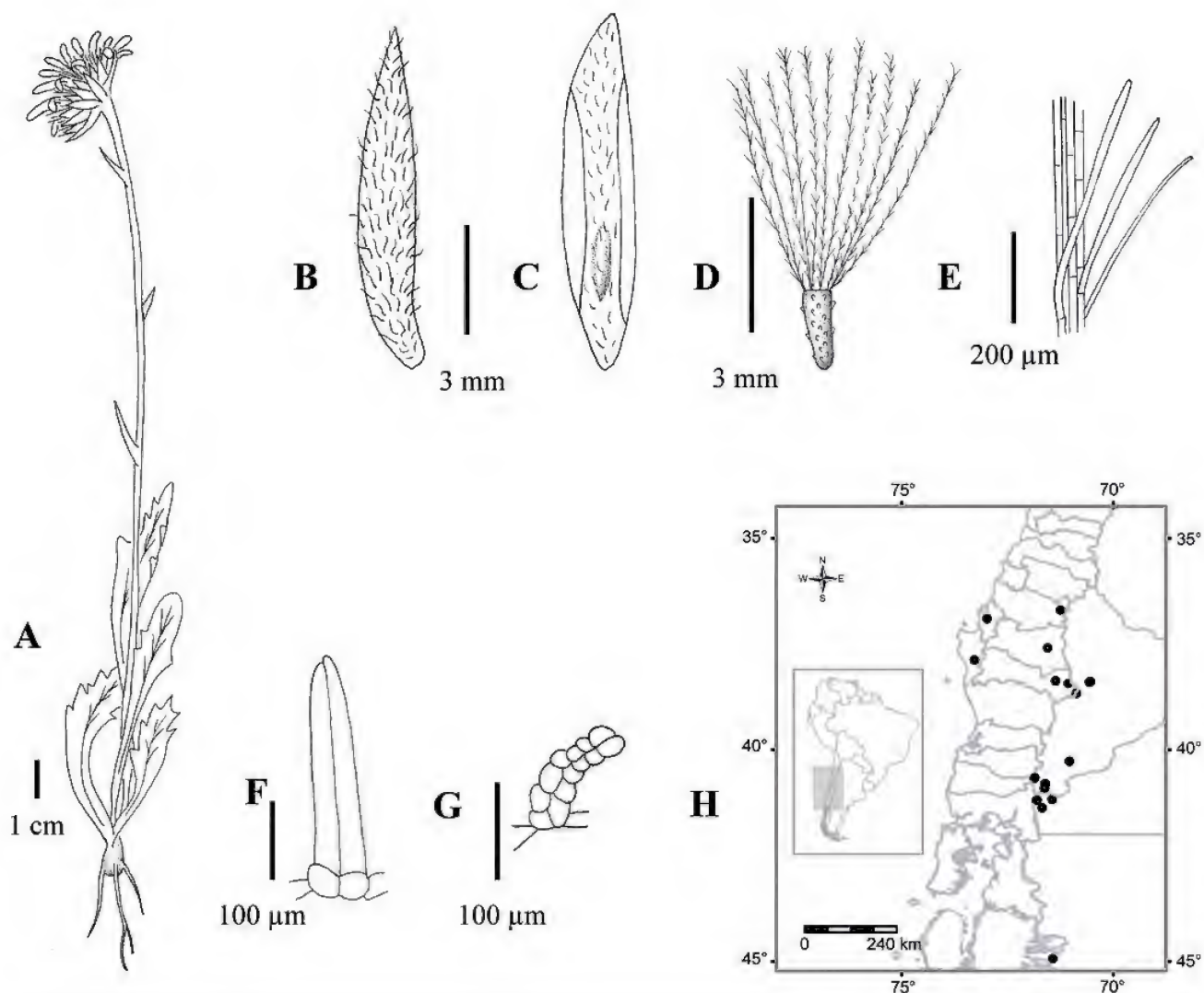


FIGURE 31. *Leucheria nutans* (J. Rémy) Reiche. A. Habit. B. Outer phyllary of the involucre. C. Inner phyllary of the involucre. D. Fruit and pappus. E. Detail of pappus bristle. F. Fruit twin trichome. G. Fruit glandular biseriate trichome. H. Distribution map. A, Diem 26 (LP); B–D, Neumeyer 479 (LP); E–G, Boelcke & Correa 6930 (LP).

both faces; lower leaves rosulate, 3–13 cm long, 0.6–1.2 cm wide, petiole winged. Capitula solitary, 1 capitula per plant, sometimes 2 or 3 by scape bifurcation, scapes sometimes decumbent, occasionally widened below the capitulum. Involucre 9–11 mm high, 2-seriate, phyllaries subequal, planate, glandular-pubescent, sparse nonglandular trichomes, apex reddish, inner phyllaries concave or planate, margins scarious; paleaceous phyllaries absent. Florets ~70, corolla white, pink. Cypselae pilose, twin trichomes ~250 µm long, scarce glandular biseriate trichomes. Pappus 5–6 mm long, isomorphic, bristles thin and cylindrical, long plumose, cilia ~600 µm long, white.

DISTRIBUTION AND ECOLOGY. Chile, in Araucanía, Biobío (type), and Ñuble Regions, also cited for Aysén Region (Tomé et al. 2007), and Argentina, in Chubut, Neuquén, and Río Negro Provinces; it grows in the mountains of the *Nothofagus* forest, usually in humid places such as swamps and bogs (malines), up to 1,800 masl.

PHENOLOGY. Collected in flower from November to March.

VERNACULAR NAMES. Unknown.

NOTE. This species is very distinctive because of its solitary capitula; subglabrous leaves that are oblanceolate, dentate, or apically lobate; and scapes with numerous linear bracts.

ADDITIONAL SPECIMENS EXAMINED. **ARGENTINA.** PROVINCE CHUBUT: dept. Río Senguer, lago Fontana, Mar 1896, *J. Koslowsky s.n.* (LP 6035). PROVINCE NEUQUÉN: dept. Los Lagos, Rincón Grande, Jan 1942, *D. de Jones* 95 (LP); Nahuel Huapi, valle del Millaqueo, laguna Las Mellizas, without date, *J. Diem* 26 (LP); Parque Nacional Nahuel Huapi, entre Puerto Manzano y lago Traful, arroyo Sin Nombre, 14 Feb 1953, *O. Boelcke & M. Correa* 6930 (BAB, LP); cerro Colorado, 2 Mar 1941, *J. Diem s.n.* (BAB); dept. Picunches, paso del Pino Solo, über Puesto Fram, 3 Feb 2006, *Ru* 12147 (LP); paso Pino Hachado, 30 Jan 1974, *M. Gentili* 156 (LP). PROVINCE RÍO NEGRO: dept. Bariloche, Tronador S, 25 Feb 1941, *J. Neumeyer* 479 (LP); Parque Nacional Nahuel Huapi, cerro Tronador, Mallín Chileno, 18 Jan 1952, *O. Boelcke & M. Correa* 5763 (BAB), id., subida al Granito, 22 Jan 1952, *O. Boelcke & M. Correa* 5902 (BAB); cerro Catedral, 8 Mar 1966, *U. Eskuche* 02-9 (LP).

CHILE. REGION ARAUCANÍA: Prov. Malleco: dept. Angol, casa de Pincheira, 14 Nov 1971, *M. Mahu* 7880 (LP); Lonquimay, paso del Pino Hachado, 10 Jan 1948, *A. Pfister s.n.* (CONC 8112, LP); camino de laguna Icalma a Liucura, en Marimenuco, en las inmediaciones del Chanchocó con el Biobío, Lonquimay, 16 Jan 1947, *A. Pfister s.n.* (CONC 7381, LP); El Saltillo, Jan 1948, *A. Pfister s.n.* (CONC 8057); Parque Nacional Conguillio, Jan 2004, *Brownless et al.* 991 (CONC). REGION ÑUBLE: Prov. Diguillín: Nevados de Chillán, Potrero El Sol, Jan 2006, *S. Pfanzelt* 48 (CONC).

21. *Leucheria polyclados* (J. Rémy) Reiche, Fl. Chil. 4: 415. 1905. *Chabraea polyclados* J. Rémy, Fl. Chil. 3: 399. 1847. "En los cerros subandinos de las provincias centrales."

Lasiorrhiza polyclados (J. Rémy) Kuntze, Revis. Gen. Pl. 1: 350. 1891, **syn. nov.** Type: CHILE: In montibus subandinis prov. centralium, *C. Gay s.n.* (holotype: P!, P00732678 digital image!). Figure 32.

Perennial herbs, caulescent, very branched from the base, up to 30 cm high. Leaves oblanceolate, oblong, pinnatipartite to pinnatisect, lobes entire but mostly dentate or lobate, linear to ovate, midvein cylindrical, glandular-pubescent adaxially, tomentose abaxially; lower leaves rosulate, 2.5–7 cm long, 0.5–1.2 cm wide, petiole winged. Capitula more than 20, grouped in lax cymes forming a lax paniculiform synflorescence. Involucres 5.5–10 mm high, 2-seriate, phyllaries subequal, outer phyllaries concave, glandular-pubescent, inner phyllaries planate or concave, margins scarious, glabrous or glandular-pubescent; paleaceous phyllaries present. Florets 15–20, corolla white, pink. Cypselae abundantly pilose, twin trichomes 190–220 µm long. Pappus 3–4 mm long, isomorphic, bristles thin and cylindrical, occasionally somewhat wide and flat, plumose, cilia ~425 µm long, white.

DISTRIBUTION AND ECOLOGY. Chile, in the Atacama region, endemic to the Copiapó mountains from San Miguel to Laguna Chica in the Huasco river basin; it grows among or under rocks, from 2,500 to 4,100 masl. The type specimen is cited for the central provinces but without details of the locality or province. Although Squeo et al. (2008) categorized this species as being at risk of extinction if not already extinct, there are recent reports of the species still present in nature, as indicated by a collection from 2009 deposited at CONC and another population spotted at Quebrada La Brea, in the valley of the Copiapó River (S. Teillier, Universidad Central de Santiago, Chile, personal communication).

PHENOLOGY. Collected in flower from December to March.

VERNACULAR NAMES. Unknown.

NOTES.

1. Rémy (1847) described *Leucheria polyclados* (sub *Chabraea*) as an annual plant. However, the type specimen (in P), which most likely served as the basis for the description, lacks the lower part of the plant. In addition, when Reiche (1905) transferred the name to *Leucheria*, he also described it as an annual plant but mentioned that samples of this species are lacking at the Museo Nacional de Santiago, suggesting that he seemingly based his description on Rémy's diagnosis. Crisci (1976) described this species as perennial, a criterion confirmed here through the comparison of the type with nontype specimens bearing all their parts.
2. The specimen at Kew (K000504369 digital image!), labeled as the type of *Chabraea polyclados*, is, in fact, a nontype specimen that coincides morphologically with *Leucheria tomentosa*. In addition, it has a label giving 1888 as the year of collection, and the original description of *Chabraea polyclados* dates from 1848.

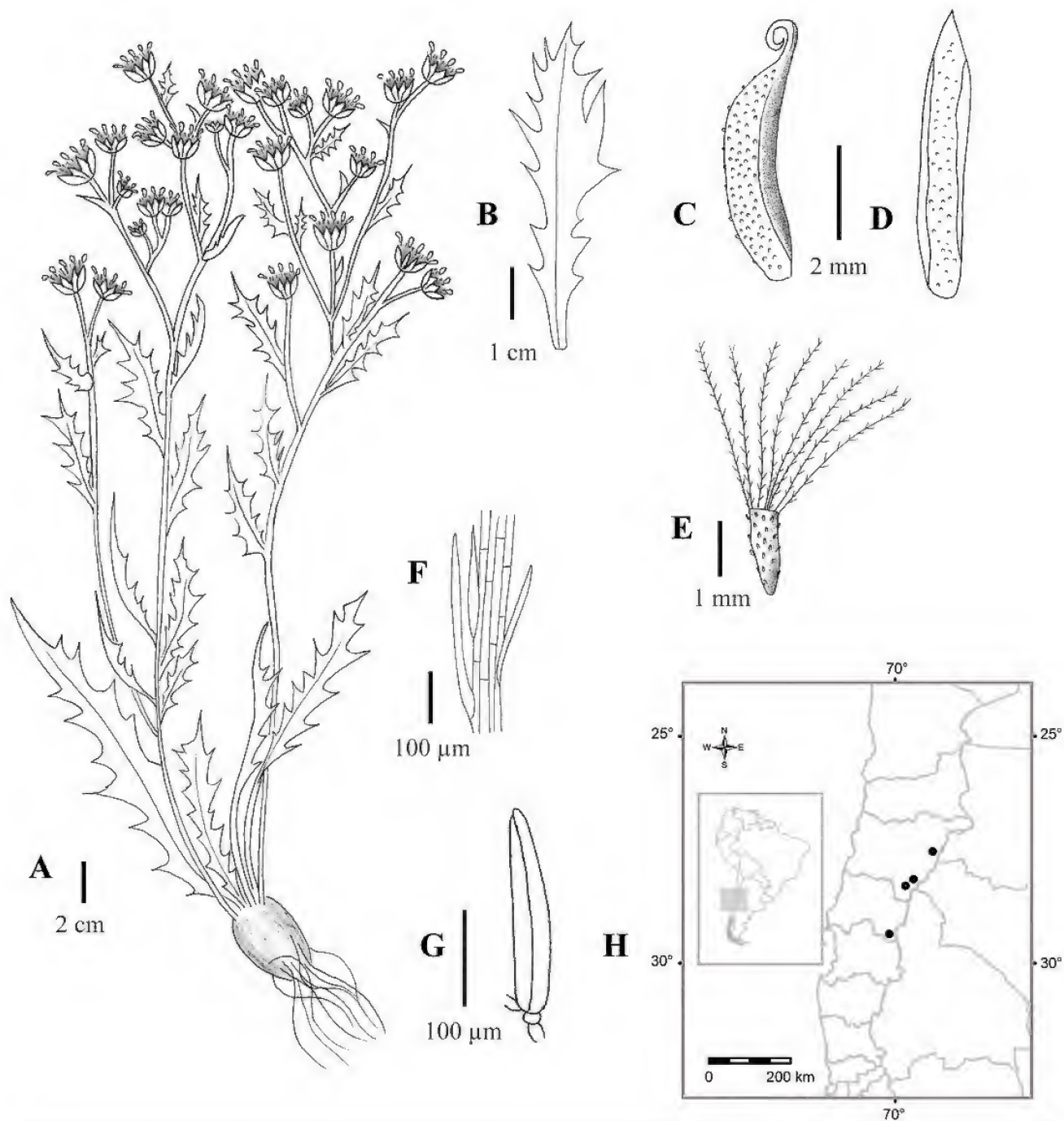


FIGURE 32. *Leucheria polyclados* (J. Rémy) Reiche. A. Habit. B. Leaf. C. Outer phyllary of the involucre (lateral view). D. Inner phyllary of the involucre. E. Fruit and pappus. F. Detail of pappus bristle. G. Fruit twin trichome. H. Distribution map. A–G, Krapovickas & Hunziker 5792 (LP).

3. *Leucheria polyclados* is distinctive because of its numerous, flexuous branches and lobulate leaves with acute teeth.

ADDITIONAL SPECIMENS EXAMINED. CHILE.

REGION ATACAMA: Prov. Copiapó: dept. Copiapó, cercanías de Plaza, río del Pan o Jorquera, 5 Feb 1949, A. Krapovickas & J. Hunziker 5792 (BAB, CONC, LP); Pircas Coloradas, 29 Jan 1949, A. Krapovickas & J. Hunziker 5707 (BAB); cuencas del río Nevado-río Salado, Feb 2009, S. Teillier & Barahona 6283 (CONC). Prov. Huasco: quebrada La Tora, Nov 2007, S. Teillier & J. Delaunoy 5577 (CONC); río Laguna Grande, Jan 1983, C. Marticorena et al. 83-401 (CONC); río Laguna Grande, quebrada Candelilla, Jan 1983, C. Marticorena et al. 83-422 (CONC).

22. *Leucheria purpurea* (Vahl) Hook. & Arn., Companion Bot. Mag. 2: 43. 1836. *Perdicium purpureum* Vahl, Skr. Naturhist.-Selsk. 1: 9, tab. 3. 1791. "Chile. Ad fretum Magellanicum. legit. Dom. Commerson, communicavit Dom. Thouin." *Lasiorrhiza purpurea* (Vahl) Lag., Amen. Nat. Españ. 1: 32. 1811. *Chabraea purpurea* (Vahl) DC., Ann. Mus. Natl. Hist. Nat. 19: 71, pl. 5, tab. 14. 1812. *Lasiorrhiza purpurea* (Vahl) Less., Linnaea 5: 11. 1830, *comb. superfl.* *Leucheria purpurea* (Vahl) Dusén, Wiss. Ergebn. Schwed. Exped. Magellansländern 3: 118. 1900, *comb. superfl.* Dusén (1900) rejected the combination performed by Hooker and Arnott (1836) because of their spelling of the genus as "Leuchaeria." *Leucheria purpurea* (Vahl) S. Moore ex Rendle, J. Bot. 42: 376. 1904, *comb. superfl.* Type: CHILE, Prov. Magallanes: Freto [strait] Magallanes, dom. Thouin, *Commerson s.n.* (holotype: C10007635 digital image!; isotypes: FI, F0050913F, LINN-HS1324-2 digital images!, PI, P00732679, P00732680, P00732681, P00732682 digital images!). Figures 11F, 33.

Leucheria millefolium Dusén & Skottsberg, Kongl. Svenska Vetensk. Acad. Handl. 56(5): 333. 1916, *syn. nov.* ARGENTINA, Prov. Chubut: "Subandines Patagonien, Dusén & Skottsberg 572." Type: Not found. Argentina, Chubut, estancia El Cherro, 40 km al E de Río Pico, lugar arenoso y pedregoso, flores blanco-rosadas, 20 Nov 1946, A. Soriano 2181 (neotype designated here: LP!, duplicate BAB!).

Leucheria millefolium Dusén & Skottsberg, f. *minor* Dusén & Skottsberg, Kongl. Svenska Vetensk. Acad. Handl. 56(5): 333. 1916. "Subandines Patagonien: Terr. Chubut, Pampa Chica in der trockenen Pampa (f. minor, densius lanata, Bl. 1, 13.11.08)." Type: ARGENTINA, Prov. Chubut: Patagonia, Territ. Chilensis, Pampa Chica, 13 Feb 1908, C. Skottsberg 571 (holotype: SI, photograph LP!).

Leucheria millefolium Dusén & Skottsberg, f. *major* Dusén & Skottsberg, Kongl. Svenska Vetensk. Acad. Handl. 56(5): 333. 1916. "Subandines Patagonien: ö Teil des Valle Frias, 44°24'S, 71°22'W, c. 600 m (f. major, laxe lanata, leg. J. Högborg)." Type: ARGENTINA, Prov. Chubut: lat. S 44°24', long W 71°22', 600 m, 25 Feb 1902, J. Hogberg s.n. (holotype: SI, S-R-3217 digital image!; isotypes: BAB2144!, [Región del lago General Pico, 44°24'S, 71°22'W, 25 Jan 1902, J. Hogberg 12] BAF00000179!, SI).

Perennial herbs, scapose, 3.5–30 cm high. Leaves oblanceolate, oblong, elliptical, bi- or tripinnatisect, lobes entire or dentate, ovate, commonly imbricate, midvein planate, glabrous, lanuginose or very lanose in both faces; lower leaves rosulate, 2–11 cm long, 0.6–2 cm wide, sometimes disposed in one or more than one bundle by sprouting rhizome, petiole winged. Capitula solitary or 2 by scape bifurcation, usually 1–12 capitula per plant. Involucre 7–11 mm high, 2- or 3-seriate, phyllaries subequal, glandular-pubescent, lanuginose or lanose, outer phyllaries concave, inner phyllaries planate, scarious, sometimes margins purplish; paleaceous phyllaries present. Florets 30–65, corolla white, pink, red, purple. Cypselae papillose, twin trichomes 38–112.5 µm long, scarce glandular biseriate trichomes. Pappus 4.5–6.5 mm long, isomorphic, bristles thin and cylindrical, long plumose, cilia 400–450 µm long, white.

DISTRIBUTION AND ECOLOGY. Chile, in Araucanía, Magallanes y la Antártica Chilena, Maule, and Ñuble Regions and cited for the Navarino Island (Méndez et al. 2013), and Argentina, in Chubut, Neuquén, Río Negro, Santa Cruz, and Tierra del Fuego Provinces; it grows on slopes and on the steppe, on sandy and rocky soils, in grasslands, in wetlands (vegas, malines), in open areas among scrubs, and along the edges of the *Nothofagus* forest, up to 2,800 masl.

PHENOLOGY. Collected in flower from November to March, although some flowering specimens are from April (BAB 2144) and August (Hogberg 124, BAB).

VERNACULAR NAMES. Contrayerba (*Philippi* 2357, LP), leuceria de los campos (*Soriano* 5615, BAB), leuceria de mil hojas (Ferreira et al. 2005).

NOTES.

1. *Leucheria millefolium* and *L. purpurea* have traditionally been recognized by their profusely divided leaves and solitary capitula. These two species have been differentiated from each other by the sericeous leaves and white and pink corollas of *L. millefolium* and the glabrous or subglabrous leaves and purple corollas of *L. purpurea*. Likewise, a geographic criterion was used to separate these species, with *L. millefolium* occurring from Neuquén to Santa Cruz in Argentina, extending to the surrounding areas in Chile, and *L. purpurea* being restricted to Tierra del Fuego and the Strait of Magellan. The analysis of several specimens, however, shows that the corolla color varies from pink to purple (e.g., *Sleumer* 1085, LP; *TBPA* 524, BAB) or from white to purple (e.g., *TBPA* 54, 74, BAB) in the same population. In addition, there are combinations of the degree of pubescence and the corolla color: plants with sericeous leaves and white and pink corollas (e.g., *Boelcke et al.* 11615, LP), sericeous leaves and purple corollas (e.g., *Correa & Nicora* 3496, BAB), subglabrous leaves and white and pink corollas (e.g., *Tweedie* 46, LP), and subglabrous leaves and purple corollas (e.g., *Boelcke et al.* 12493, BAB). In general, these combinations appear in the area where the distributions of these

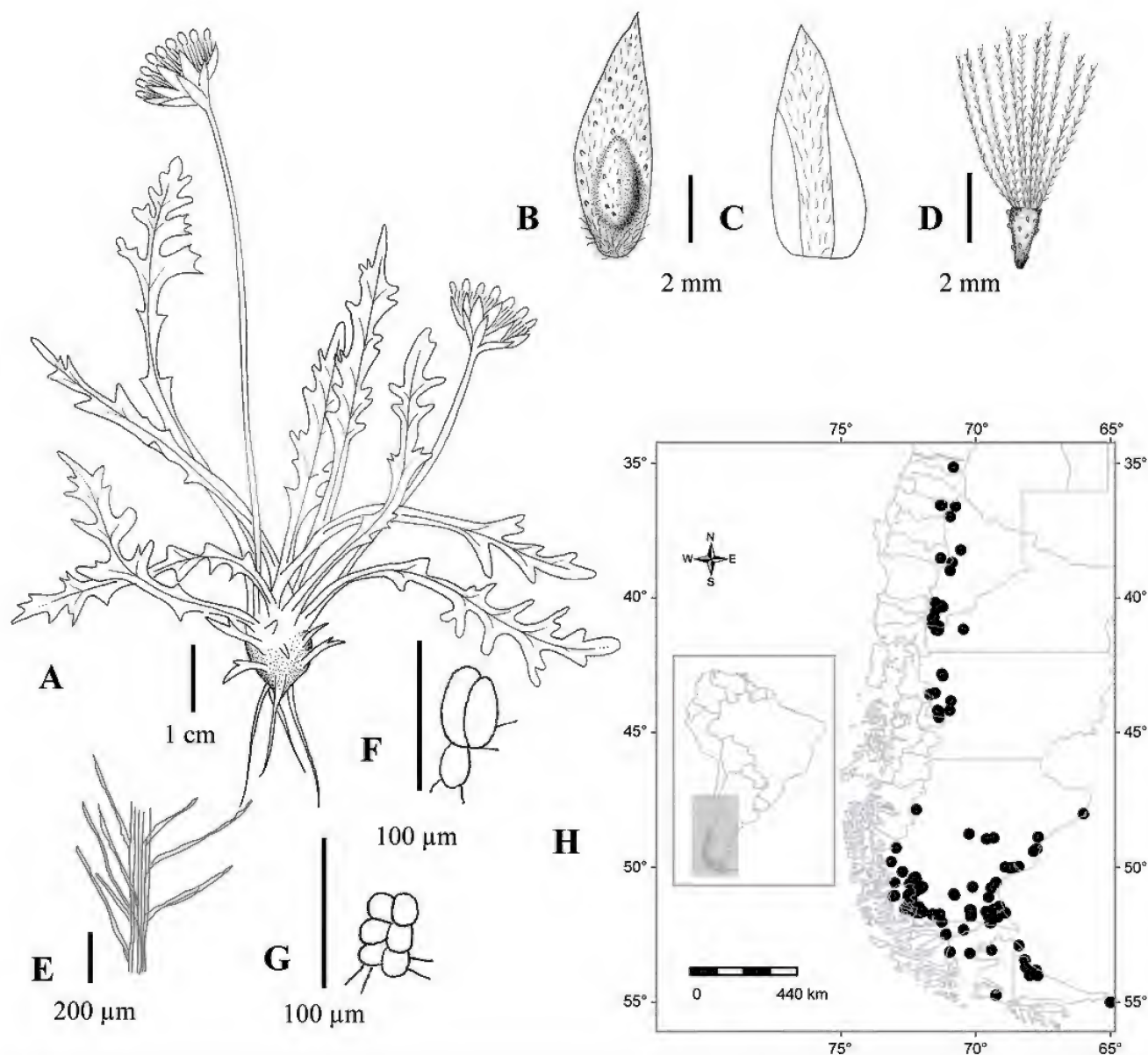


FIGURE 33. *Leucheria purpurea* (Vahl) Hook. & Arn. A. Habit. B. Outer phyllary of the involucre. C. Inner phyllary of the involucre. D. Fruit and pappus. E. Detail of pappus bristle. F. Fruit twin trichome. G. Fruit glandular biseriate trichome. H. Distribution map. A, Moore & Goodall 283 (LP); B–D, Gentili 429 (LP); E, Goodall 147 (LP); F, G, Ruiz Leal 27024 (LP).

entities overlap (i.e., in Santa Cruz Province, Argentina), but plants with purple and white and pink corollas appear throughout the whole extent of the distribution. Given these variations and combinations, *L. millefolium* is here considered a synonym of *L. purpurea*, the earliest legitimate name.

2. In the description of *Leucheria millefolium*, Skottsberg (1916) established two new varieties, *minor* and *major*, with their type localities. The geographic locality of the autonym, however, is not very detailed (sub-Andean Patagonia), with the only available information being the collector and number: *Dusén and Skottsberg n. 572*.

We could not locate at S any specimen of *Leucheria* with these collectors and numbers. Instead, specimen *Skottsberg* 572 corresponds to an alga, and specimen *Dusén* 572 corresponds to a species of Valerianaceae. We analyzed the distributions of *L. millefolium* var. *minor* and *L. millefolium* var. *major*. These varieties were collected in an area of Chubut Province ranging from Pampa Chica (probably estancia Pampa Chica at 43°23'46.680"S, 70°47'39.840"W) to 44°24'S, 71°2'W (Tehuelches Department). *Skottsberg* (1916:86) located Pampa Chica southwest of "Fuyel," probably referring to the locality El Foyel (41°39'S, 71°27'W) in southern Río Negro Province, between Bariloche and El Bolsón. Taking this information into consideration, we chose the specimen *Soriano* 2181 (BAB, LP) from Tehuelches Department in Chubut, south of El Foyel, whose morphology matches that described in the protolog of *L. millefolium*, as a neotype of *L. millefolium*.

3. The specimen *Romero* 17 (LP) from Santa Cruz is atypical in its mostly long, entire, linear leaves. Since it has one or two partite leaves and the remaining morphological features match those of *L. purpurea*, we include this specimen in the *exsiccatae* of this species.
4. *Leucheria purpurea* resembles *L. eriocephala* (see Notes for *L. eriocephala*).

ADDITIONAL SPECIMENS EXAMINED. ARGENTINA.

PROVINCE CHUBUT: dept. Futaleufú, Corcovado, 1901, *N. Illin* s.n. (LP), cerro Colorado, 12 Jan 1948, *A. Krapovickas* 4074 (BAB); Esquel, La Hoya, 20 Jan 1973, *A. Cabrera et al.* 23137 (LP); dept. Languineo, Carrenleufú, 1 Mar 1900, *N. Illin* s.n. (LP); dept. Río Senguer, lago Fontana, 11 Feb 1932, *A. Castellanos* s.n. (LP 75319); 2 leguas al S de Apeleg-ruta 40, 17 Jan 1948, *A. Soriano* 3124 (BAB); estancia Pepita, Alto Río Senguer, 13 Feb 1947, *A. Soriano* 2590 (BAB, LP); dept. Sarmiento, al W del paso, W Manantial Grande, al SE de Facundo, 21 Jan 1972, *U. Eskuche et al.* 1927-13 (LP); dept. Tehuelches, estancia Laurita, al S de Nueva Lubecka, 7 Feb 1945, *A. Soriano* 1514 (LP); 20 km de Río Pico, en el camino a Lago Vintter, 16 Jan 1948, *A. Krapovickas* 4140 (BAB); Río Frías, Putrachoique, 1899, *N. Illin* s.n. (BAB 1900); Río Pico, without date, *S. Roth* s.n. (LP 6006), 24 Jan 1960, *A. Soriano* 5615 (BAB). Without department: Tetrachoique, Dec 1899, *N. Illin* s.n. (BAB 1921); meseta cerca de Pablo Ledesma, 5 Feb 1903, *C. Spegazzini* s.n. (BAB 102611). Without locality: 1 Feb 1819, *N. Illin* s.n. (BAB 1938), Nov 1920, *C. Burmeister* s.n. (BAB 2090). PROVINCE NEUQUÉN: dept. Aluminé, Pampa de Lonco Luan, 4 Jan 1968, *A. Ruiz Leal* 25809 (LP); dept. Lácar, San Martín de los Andes, cerro Chapelco, 16 Jan 1973, *A. Cabrera et al.* 23021 (LP), 22 Jan 1970, *A. Cabrera* 20531 (CONC, LP), 26 Jan 1966, *U. Eskuche* 606-11, 601-15 (LP), 10 Jan 1955, *S. Schajovskoy* 49 (LP), 16 Feb 1968, *A. Cabrera & J. Crisci* 19143 (LP), 13 Feb 1972, *J. Crisci* 519 (LP), encima del refugio, 23 Nov 1974, *M. Correa et al.* 5876 (BAB, LP); cerca 22 km SE of San Martín de los Andes toward La Teta, up from refugio Federico Graef to

summit, 29 Jan 1987, *T. Stuessy et al.* 10060 (LP); lago Lácar, 1896, *S. Roth* s.n. (LP 6008); lago Villarino, 1896, *S. Roth* s.n. (LP 5995, 6007, 75059); dept. Loncopué, Chenque Pehuén, cerro Buta huao, 14 Jan 1982, *R. Rossow et al.* 1073 (BAB); dept. Los Lagos, Parque Nacional Nahuel Huapi, nacimiento río Estacada (este), en la travesía que conduce al cerro Viola, 28 Feb 1963, *J. Diem* 3106 (LP), cerro Bayo, Jan 1942, *D. de Jones* 86 (LP), lago Nahuel Huapi, 15 Dec 1897, without leg. (LP 6009), 5 Dec 1897, *S. Roth* s.n. (LP 75060), alrededores del Nahuel Huapi, 1896, *S. Roth* s.n. (LP 5996); Santa María, subida al cerro Shaihueque, 27 Jan 1964, *J. Diem* 3217 (BAB); dept. Minas, cordillera del Viento, cruzada de Tricao Malal al cajón del Butaló, Portezuelo, 3 Feb 1964, *O. Boelcke et al.* 11615, 11640 (BAB, LP); dept. Picunches, Pino Hachado, 6 Mar 1939, *A. Burkart* 9649 (LP); Primeros Pinos, en ruta 13 para lago Aluminé, 11 Dec 1985, *B. Leuenberger* 3439 (BAB). PROVINCE RÍO NEGRO: dept. Bariloche, cerro Catedral, 15 Feb 1972, *J. Crisci* 530 (LP); cerro Ventana, 17 Mar 1940, *J. Neumeyer* 14 (LP); dept. Pilcaniyeu, cerro Anecón, 29 Dec 1938, *E. Ferruglio* 54 (LP). Without locality: 1903, *C. Larguia* s.n. (BAB 8798). PROVINCE SANTA CRUZ: dept. Corpen Aike, Comandante Luis Piedrabuena, 5 km al N por río Santa Cruz, 23 Nov 1963, *M. Correa et al.* 2744 (BAB); 10 km NE de Piedrabuena, 30 Nov 1975, *M. Correa et al.* 6512 (BAB); 12 km de Puerto Santa Cruz a Piedrabuena, 12 Dec 1975, *M. Correa et al.* 6616 (BAB); Chicorok-aiken, 1 Apr 1899, *C. Burmeister* s.n. (BAB 2144); Cañadón de las Vacas, 9 Jan 1899, *C. Burmeister* s.n. (BAB 2150); dept. Deseado, camino Tellier-paso Gobernador Gregores, ruta 288, km 57, 20 Nov 1963, *M. Correa et al.* 2656 (BAB); dept. Güer Aike, 51°51'S, 70°13'W, 20 Dec 1975, *TBPA* 259 1/2 (BAB); Güer Aike, 4 Jan 1976, *E. Méndez* 1066 (BAB); Río Turbio, 16 Dec 1976, *TBPA* 2129 (BAB), Feb 1968, *E. Romero* 17, 29 (LP); zona San José-Campamento Marina-arroyos Santa Flavia y Santa Eloísa-yacimientos Río Turbio, Dec 1949/Jan 1950, *M. Hünicken* 21 (LP); ruta nacional 40 de Río Turbio a Tapi Aike, cerca de Río Turbio, 12 Jan 2005, *M. Morales & B. Goodson* 28 (BAB); valle superior del río Turbio, Cordillera Chica, 5 Feb 1978, *TBPA* 3719 (BAB), id., al W de puesto 16, La Primavera, 28 Jan 1978, *TBPA* 3336 (BAB, CONC); estancia Punta Loyola Sur, 4 Dec 1976, *TBPA* 806 (BAB); Esperanza, río Coyle, 15 Dec 1950, *H. Sleumer* 1085 (LP); Río Gallegos, 25 Nov 1950, *H. Sleumer* 774 (LP), 9 Jan 1941, *R. Spegazzini* 380 (BAB), Jan 1900, without leg. 23 (LP), cerro Norte, 27 Nov 1950, *H. Sleumer* 827 (LP), entre estancia Maragata y las Buitreras, 10 Dec 1975, *TBPA* 408 (BAB), estancia La Carlota, 9 Dec 1975, *TBPA* 336 (BAB), 8 Jan 1976, *TBPA* 350 1/2 (BAB), 11 Dec 1950, *H. Sleumer* 1069 (LP), estancia Los Pozos, 5 Dec 1975, *TBPA* 154 (BAB), estancia La Angélica, 4 Dec 1975, *TBPA* 95 (BAB); 25 km S Río Gallegos, 22 Jan 1949, *E. Grondona* 2082 (LP); ruta 293, a 70 km W de Río Gallegos, estancia Las Buitreras, 14 Jan 1967, *O. Boelcke et al.* 12377 (BAB); 85 km N de Río Gallegos, 2 Dec 1971, *O. Boelcke et al.* 15327 (BAB); ruta 40, a 68 km del hotel La Esperanza a Calafate, 17 Jan 1967, *O. Boelcke et al.* 12493 (BAB); ruta 40,

5 km del río Gallegos camino a Esperanza, 26 Nov 1963, *M. Correa et al.* 2816 (BAB); faldeos al S del cerro Cazador-límite con Chile, 27 Jan 1976, *M. Gentili* 414 (LP); estancia Glen Cross, 14 Dec 1976, *TBPA* 2089 (BAB), 6 Dec 1950, *H. Sleumer* 986 (LP); estancia Cabo Buen Tiempo, 4 Dec 1975, *TBPA* 19 1/2 (BAB), 9 Dec 1975, *TBPA* 86 1/2 (BAB), mirando ría de Río Gallegos, 4 Dec 1975, *TBPA* 54, 74 (BAB), id., laguna Silva, 3 Dec 1975, *TBPA* 6 (BAB); estancia Stag River, 16 Nov 1957, *R. Tweedie* 36 (LP), 21 Nov 1957, *R. Tweedie* 46 (LP); estancia Genoveva-margen izquierdo arroyo Guillermo, 24 Jan 1976, *M. Gentili* 429 (LP); camino Lemarchand-Puerto Coig, 24 Nov 1963, *M. Correa et al.* 2766 (BAB); estancia Las Vizcachas, laguna Vizcacha, 28 Jan 1977, *TBPA* 2575, 2576 (BAB), id., cerro Las Vizcachas, 25 Jan 1977, *TBPA* 2421 (BAB), id., arroyo de Las Vizcachas, 17 Jan 1970, *A. Ruiz Leal* 27024 (LP), id., cerro Pto. La Piedra, W arroyo Bueno, 26 Jan 1977, *TBPA* 2515 (BAB), id., cerro Sin Nombre, 29 Jan 1977, *TBPA* 2627 (BAB); estancia Cóndor, 6 Dec 1976, *TBPA* 879, 880 (BAB); estancia Primavera, al N de ruta 292, 16 Dec 1976, *TBPA* 1193 (BAB); estancia Don Bosco, cerro Norte, 7 Dec 1976, *TBPA* 938 (BAB); estancia Sofía, sección Cuadrado, 3 km W del casco, 8 Feb 1978, *TBPA* 3006 (BAB); estancia La Verdadera Argentina, cerro de La Virgen, 17 Jan 1977, *TBPA* 2105 (BAB), 18 Jan 1977, *TBPA* 2236, 2251 (BAB), id., S del cerro León, 6 km S del casco de la estancia, 16 Jan 1977, *TBPA* 2077 (BAB); NW del morro Philippi, 14 Dec 1976, *TBPA* 1104 (BAB), pie del morro Philippi, 14 Dec 1976, *TBPA* 1078 (BAB); ruta a 28 de Noviembre, 14 Jan 1976, *TBPA* 424 1/2 (BAB); estancia BellaVista, 6 Jan 1976, *E. Méndez* 1067 (BAB); dept. Lago Argentino, Cerro Buenos Aires-lago Argentino, 14 Jan 1941, *R. Spegazzini* 464 (BAB); alrededores del cerro Fitz Roy, Feb 1932, *P. Agostini* B-35 (LP); dept. Magallanes, camino San Julián-Gregores, 19 Nov 1965, *M. Correa & E. Nicora* 3496 (BAB); ruta 3, 15 km al S de Puerto San Julián, 25 Nov 1976, *A. Ruiz Leal* 28587 (BAB); estancia Coronel, brazo N del río Coyle, 22 Jan 1903, *T. Arneberg* 35 (BAB), id., entre Puerto de Santa Cruz y el brazo N del río Coyle, 21 Jan 1903, *T. Arneberg* 2 (BAB); dept. Río Chico, estancia El Rincón, lago Belgrano, 20 Dec 1940, *R. Spegazzini* 115 (BAB), 21 Dec 1940, *R. Spegazzini* 140 (BAB). Without department: Río Santa Cruz, Feb 1900, *F. Silvestri s.n.* (BAB 2246, 2247, 2248, 2251), Jan-Mar 1900, *C. Burmeister s.n.* (BAB 2182). Without locality: without date, *C. Spegazzini s.n.* (LP); territorio de Santa Cruz, 7 Aug 1903, *J. Hogberg* 124 (BAB); San Julián-Río Deseado, 1898, *C. Ameghino s.n.* (LP 516701). PROVINCE TIERRA DEL FUEGO, ANTÁRTIDA E ISLAS DEL ATLÁNTICO SUR: dept. Río Grande, Río Grande, Jan 1950, *A. Hunziker* 8279 (LP); estancia Los Flamencos, 46 km W of Río Grande, 4 Jan 1971, *D. Moore & N. Goodall* 283 (BAB, LP); 27 km N del casco de estancia Cullen, 22 Nov 1971, *O. Boelcke et al.* 15178 (BAB); cerro Sección Miranda, 28 Jan 1955, *J. Hunziker* 6750 (BAB); estancia La Sara, 80 km W, 24 Jan 1960, *M. Correa & R. Pérez Moreau* 2005 (BAB, LP); Punta Popper, from frigorífico to mouth of Río Grande river, 18 Dec 1972, *N. Goodall* 4407 (BAB); Cabo Peñas flat, 19 Nov 1965, *N. Goodall* 147 (LP); dept.

Ushuaia, Bahía Thetis, Mar 1941, *A. Umana* 158 (LP). PROVINCE UNKNOWN: Patagonia, without date, *S. Roth s.n.* (LP 6004), 1904, *Tessleff s.n.* (BAB 5576), Jan 1902, *R. Hauthal s.n.* (LP), 1891/1894, *C. Burmeister* 75 (LP); Poyo-huapi, 1898, without leg. (LP).

CHILE. REGION ARAUCANÍA: Prov. Malleco: Lonquimay, paso Pino Hachado, 10 Jan 1948, *A. Pfister s.n.* (CONC 8133, LP), Jan 1948, *M. Ricardi & C. Marticorena* 5111 (CONC). REGION MAGALLANES Y LA ANTÁRTICA CHILENA: Prov. Antártica Chilena: islote de Puerto Luisa, 24 Nov 1970, *E. Pisano* V. 2836 (LP). Prov. Magallanes: estancia Cinco de Enero, 108 km NE of Punta Arenas, on ruta 255, Manantial, Cumbres de San Gregorio, behind house, 8 Dec 1971, *N. Goodall* 4091 (BAB); Parque Nacional Pali Aike, laguna Los Cisnes, Jan 2004, *Domínguez* 103 (CONC), id., San Gregorio, Dec 2000, *Domínguez & Elvebakk* 12 (CONC), id., Escorial Pali Aike, 4 Dec 1974, *Dollenz* 240 (CONC), id., sector Maares, Jan 2001, *Domínguez* 25 (CONC); Morro Chico, Mar 1972, *E. Pisano* V. 3583 (CONC), Jan 1952, *Pfister & Ricardi s.n.* (CONC 11983); estancia Otway, Jan 1952, *Pfister & Ricardi s.n.* (CONC 11823); estancia Tres Chorrillos, Dec 1983, *Dollenz* 1355 (CONC); laguna Mantecón, Dec 1950, *Cekalovic s.n.* (CONC 39769). Prov. Tierra del Fuego: Porvenir, Jan 1935, *H. Behn s.n.* (CONC 21241). Prov. Última Esperanza: cerro Castillo, 11 Dec 1971, *N. Goodall* 4146 (BAB); estancia Cerro Castillo, 13 Dec 1975, *TBPA* 441 (BAB, CONC), sección Tres Pasos, hotel, 14 Jan 1977, *TBPA* 1555, 1589, 1605 (BAB), id., pot. [potrero] 6 Afuera, S Cazador, 14 Dec 1975, *TBPA* 524, 531 (BAB), id., cerro Solitario, 14 Jan 1977, *TBPA* 1621 (BAB), id., laguna Dorotea, 13 Jan 1977, *TBPA* 1465 (BAB), id., lago Sofía, 14 Jan 1977, *TBPA* 1525 (BAB); Parque Nacional Torres del Paine, Laguna Azul, Oct-Nov 1999, without leg. 93 (BAB 92082), id., laguna Mellizas, Nov 2002, *Domínguez* 260 (CONC), id., al S de laguna Flamencos, Nov 2001, *Domínguez* 420, 451, 469 (CONC), id., sector laguna Amarga, Nov 2001, *Domínguez* 354, 390 (CONC); Salto Grande del Payne, 22 Dec 1969, *E. Pisano* V. 2373 (CONC, LP); cordillera del Paine, Feb 1992, *C. von Bohlen & L. Cavieres* 325 (CONC); estancia Dos de Enero, valle de Las Chinas, 8 Dec 1978, *E. Pisano* V. & *R. Cárdenas* K. 4860 (BAB); estancia La Cumbre, sierra Baguales, 4 Dec 1978, *E. Pisano* V. & *R. Cárdenas* K. 4742 (BAB); Las Cumbres, Baguales, Feb 1962, *M. Ricardi & O. Matthei* 416 (CONC); Sierra Baguales, cerro Santa Lucía, 23 Dec 1984, *M. Arroyo* 84-1110, 84-1127 (CONC), Jan 1986, *M. Arroyo & E. Squeo* 86-0012 (CONC), id., cerro La Tropilla, Jan 1987, *A. Landero* 762 (CONC), Dec 1986, *A. Landero* 687 (CONC), id., campo Estancia Vieja, Dec 1986, *A. Landero* 704A (CONC); Natales-cerro Dorotea, 12 Feb 1946, *E. Barros* 6169 (LP); estancia María Leticia, lago Payne, 26 Nov 1970, *E. Pisano* V. 2857 (LP); Cueva del Mylodon, Jan 1952, *A. Pfister & M. Ricardi s.n.* (CONC 12073); cerro Guido, Jan 1952, *A. Pfister & M. Ricardi s.n.* (CONC 12175); sierra Contreras, Jan 1952, *Barrientos s.n.* (CONC 93775); sierra del Toro, Feb 1992, *M. Kalin et al.* 43, 54 (CONC). REGION MAULE: Prov. Curicó: Andes de Curicó, without date, *Vergara s.n.* (LP 75412). REGION ÑUBLE: Prov.

Diguillín: Termas de Chillán, Feb 1933, *P. Jaffuel* 2809 (CONC), id., valle de Las Nieblas, Feb 1989, *H. Niemeyer & Fernández* 8931 (CONC). REGION UNKNOWN: Jan 1977, *TBPA* 1965 (BAB), Nov 1877, without leg. (LP 6026).

23. *Leucheria rosea* Poepp. ex Less., Syn. Gen. Compos.: 402. 1832, non *Leucheria rosea* (DC.) Reiche, 1905, *nom. illeg. hom.* (based on *Lasiorrhiza rosea* Poepp. ex Less., 1832 and *Chabraea rosea* (Poepp. ex Less.) DC., 1838 [= *Leucheria viscida* (Bertero ex Colla) Crisci]; see Notes). “Pöppig in Chile.” *Trixis rosea* Poepp. ex Less., Syn. Gen. Compos.: 402. 1832, *nom. nud. pro syn. Leuceria andryaloides* DC., Prodr. 7: 57. 1838, *nom. nov. pro Leucheria rosea* Poepp. ex Less. *Lasiorrhiza rosea* Poepp. ex Less. var. [*andryalodes*] *andryaloides* (DC.) Kuntze, Revis. Gen. Pl. 3(3): 162. 1898. Type: CHILE, Prov. Cordillera; ARGENTINA, Prov. Mendoza: Chile borealis, in aridissimis Andium inferiorum inter Puente de Vizcachas et La Guardia, Dec 1827, *E. F. Poeppig* Coll. Pl. Chil. II 118(24), *Diar.* 574 (lectotype designated here: W0017695 digital image!; isoelectotypes: W0017696, HAL0113161, G-DC00492931, M0030665 digital images!, P!, P00732683 digital image!). Figure 34.

Leucheria lepida Phil., Anales Univ. Chile 87: 110. 1894. “Habitat in Andibus provinciae Curicó loco dicto Cipreses. Manuel Vidal.” Type: CHILE, Prov. Curicó: Andes de la provincia de Curicó, Cipreses, M. Vidal *s.n.* (holotype: SGO 604931, photograph LP!; isotype: LP!).

Lasiorrhiza rosea Poepp. ex Less. var. *albiflora* Kuntze, Revis. Gen. Pl. 3(3): 162. 1898. “Chile: 2600 m Paso Cruz.” Type: ARGENTINA, Prov. Mendoza: Chile, Paso Cruz, 2,200 m, Jan 1892, C. E. O. Kuntze *s.n.* (holotype: NY!, NY00180494 digital image!; isotype: US!, US00119996 digital image!; see Distribution and Ecology).

Perennial herbs, caulescent, 20–100 cm high, branches sometimes divaricate. Leaves oblong, oblanceolate, pinnatipartite or pinnatisect, lobes entire or sometimes dentate, oblong, linear, midvein cylindrical, lanuginose adaxially, lanose abaxially; lower leaves rosulate, 5–20 cm long, 0.8–2 cm wide, petiole winged. Capitula 5–80, grouped in dense or lax cymes forming a lax paniculiform synflorescence. Involucres 4–7 mm high, 3-seriate, phyllaries lanose, tightly disposed, outer phyllaries shorter, planate, reddish, intermediate phyllaries concave, reddish, inner phyllaries planate, margins scarious; paleaceous phyllaries present. Florets 30–50, corolla white, pink. Cypselae pilose, twin trichomes ~200 µm long. Pappus 4–4.5 mm long, isomorphic, bristles thin and cylindrical, scabrid to barbellate, cilia ~175 µm long, white.

DISTRIBUTION AND ECOLOGY. Chile, in Maule, Metropolitana de Santiago, O’Higgins, and Valparaíso Regions, and Argentina, in Mendoza Province (only the type specimen; Crisci 1976). The label of the type specimen of *Lasiorrhiza rosea* var. *albiflora* mentions Paso Cruz in Chile, but this is an old name of a locality of Mendoza, Argentina, near the border with Chile. *Leucheria rosea* grows in mountain areas of the Andes and the Andean coastal range in Chile, from 1,000 to 2,500 masl. It is

cited as being infrequent in the sclerophyllous vegetation of Altos de Chicauma in central Chile, at 33°S, from 1,400 to 2,200 masl (García 2010).

PHENOLOGY. Collected in flower from November to April.

VERNACULAR NAMES. Unknown.

NOTES. This species has a complicated nomenclatural history that merges with that of *Leucheria viscida* (see Notes for *Leucheria viscida*) because of the use of the specific epithet “rosea” in both taxa. Lessing (1832) established the names *Leucheria rosea* Poepp. ex Less. (p. 402) and *Lasiorrhiza rosea* Poepp. ex Less. (p. 405), each with its own nomenclatural type. The type specimens of *Leucheria rosea* have labels with the name “*Trixis rosea* Poepp.” Lessing cited this name (*nomen nudum*) in the list of synonyms and took its specific epithet “rosea.” Something similar occurred with *Lasiorrhiza rosea*, where some type specimens have labels with the name “*Perdicium roseum* Poepp.” This name, together with “*Chabraea viscosa* Bert., mss.” (an orthographic variant of *Chabraea viscida* Bertero), was included by Lessing in the list of synonyms (both *nomina nuda*) of *Lasiorrhiza rosea*. In 1835, Colla validly published *Chabraea viscida* Bertero ex Colla (currently *Leucheria viscida*). De Candolle (1838), probably unaware of Colla’s publication, established *Chabraea rosea* (Poepp. ex Less.) DC. (based on *Chabraea viscosa* Bertero, *Perdicium roseum* Poepp., and *Lasiorrhiza rosea* Poepp. ex Less., listed in the synonymy) and intended to solve the name confusion, creating the new name *Leuceria andryaloides* DC. for *Leucheria rosea* Poepp. ex Less., but he only generated a superfluous name. In 1898 Kuntze combined the two species, *Leucheria rosea* and *Leucheria viscida*, through transference and the creation of a variety, adding more confusion to this nomenclatural history. First, he transferred *Leucheria rosea* Poepp. ex Less. to *Lasiorrhiza*, ignoring that Lessing had already created *Lasiorrhiza rosea* in 1832. Second, he established the new variety *Lasiorrhiza rosea* Poepp. ex Kuntze var. *andryaloides* (DC.) Kuntze, with *Leuceria andryaloides* being an illegitimate name generated by de Candolle, as mentioned above. Finally, *Lasiorrhiza rosea* was transferred to the genus *Leucheria* by Reiche in 1905 (*Leucheria rosea* (DC.) Reiche), generating an illegitimate name because *Leucheria rosea* Poepp. ex Less. was already published.

Despite the interrelated histories, *Leucheria rosea* and *L. viscida* are morphologically different, recognizable species. *Leucheria rosea* are lanose plants with membranaceous, concolor, and partite leaves (vs. glandulose plants with rigid, discolor, and pectinate-lobulate leaves in *L. viscida*), tightly disposed phyllaries (vs. more laxly disposed), and white or pink corollas (vs. reddish corollas).

The literature is contradictory regarding the annual or perennial life cycle of *L. rosea*. Lessing (1832) mentioned in his diagnosis “*Herba tenera, verisimiliter annua*” (tender plant, probably annual). Philippi (1894) said in the diagnosis of *L. lepida*, “*L. perennis?*” Reiche (1905) described *L. andryaloides* as annual. In the specimens analyzed that contain underground parts (e.g., Crisci 413, Cabrera 3471, 3483, LP)

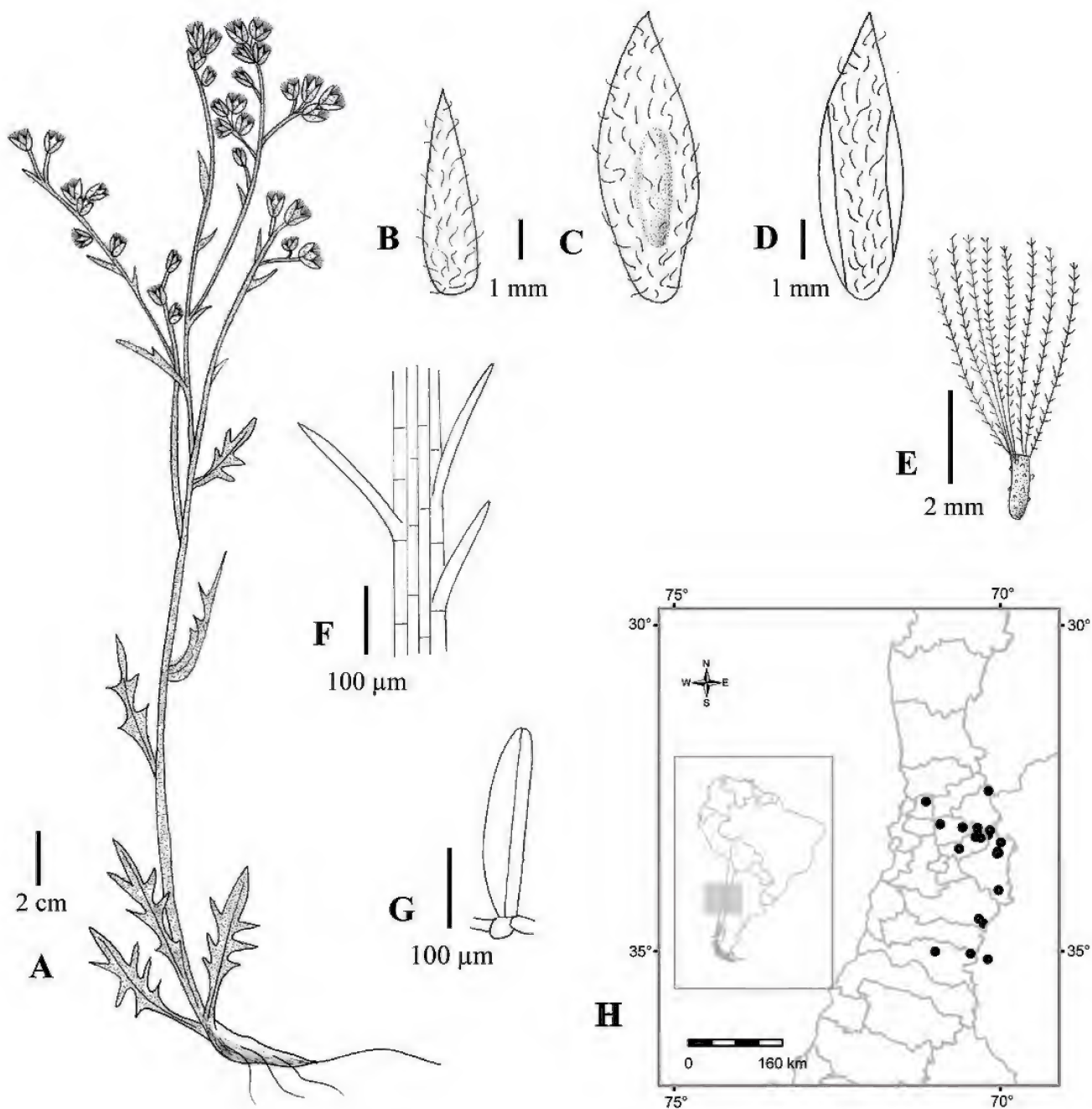


FIGURE 34. *Leucheria rosea* Poepp. ex Less. A. Habit. B. Outer phyllary of the involucre. C. Middle phyllary of the involucre. D. Inner phyllary of the involucre. E. Fruit and pappus. F. Detail of pappus bristle. G. Fruit twin trichome. H. Distribution map. A, F, G, *Cabrera* 3445 (LP); B–E, *Cabrera* 3483 (LP).

thickened and somewhat lignified organs are present. We performed histological transections of these organs and corroborated that they correspond to thickened tap roots with secondary growth. Therefore, in agreement with Crisci (1976), we consider *L. rosea* a perennial species.

Leucheria rosea are lanose plants easily recognized by their branched synflorescence and small, spherical capitula.

ADDITIONAL SPECIMENS EXAMINED. **CHILE.** **REGION LIBERTADOR BERNARDO O'HIGGINS:** Prov. Cachapoal: Rengo, hacienda Las Nieves, 28 Dec 2005, *L. Faúndez & B. Larrain* 1072 (CONC). Prov. Colchagua: El Flaco, 23 Jan 1948, *E. Barros* 7438 (LP); Termas del Flaco, Feb 1983, *G. Montero* O. 12500 (CONC), Jan 1963, *G. Montero* O. 6655 (CONC); Cajón de Los Helados, Jan 1951, *M. Ricardi s.n.* (CONC 10170); Huertecillas, Jan 1951, *M. Ricardi s.n.* (CONC 10122); Termas del Flaco, Feb 1989, *H. Niemeyer & Fernández* 8903 (CONC); San Fernando, Alto Huelmul, 3 Jan 2006, *L. Faúndez & B. Larrain* 1296 (CONC). **REGION MAULE:** Prov. Curicó: Los Queñes, 18 Feb 1930, *E. Barros* 2641 (LP), 9 Jan 1939, *E. Barros* 2626, 2627, 2628 (LP); 21 km al interior de Los Queñes, Mar 1967, *C. Marticorena* 815 (CONC); Teno, La Montaña, 27 Jan 1945, *E. Barros* 3912 (LP); cordillera El Planchón, 17 Feb 1939, *E. Barros* 2611 (LP); valle Vergara, Feb 1967, *Calderón s.n.* (CONC 34575). **REGION METROPOLITANA DE SANTIAGO:** Prov. Chacabuco: Altos de Chicauma, sector Tranque, Jan 2003, *N. García & L. Faúndez* 3685 (CONC); Colina, Oct 1919, *K. Behn s.n.* (CONC 21224). Prov. Cordillera: San José de Maipo, 17 Jan 1966, *M. Mahu* 1966 (LP); río Cruz Piedra y Los Chorreados, Jan 2000, *S. Teillier* 4580 (CONC); Cajón de Morales, sector Panimavidas, Jan 2002, *S. Teillier & Márquez* 5307B (CONC), de Panimavidas a Laguna, Dec 2001, *S. Teillier & Márquez* 5232 (CONC); monumento El Morado, Jan 2010, *S. Teillier et al.* 7563 (CONC). Prov. Santiago: cerro San Cristóbal, 21 Dec 1935, *A. Cabrera* 3445 (LP), 21 Nov 1953, *G. Kausel* 3843 (LP); El Volcán, 29 Dec 1935, *A. Cabrera* 3471 (LP), 10 Jan 1970, *J. Crisci* 413 (LP), Mar 1953, *M. Ricardi* 2427 (CONC); Limache, cordillera del Abanico, 30 Dec 1928, *A. Garaventa* 651 (LP); Las Condes, 12 Jan 1936, *A. Cabrera* 3483 (LP), cerro Naranjo, 13 Jan 1954, *G. Kausel* 3858 (LP); Laguna Negra, ribera oriental, Jan 1990, *S. Teillier et al.* 1985, 1992 (CONC); quebrada de Ramón, Sep 2000, *G. Tome* 161 (CONC), Oct 2000, *G. Tome* 162 (CONC), Jan 2001, *G. Tome* 160 (CONC); Santuario de la Naturaleza Yerba Loca, al W de quebrada Los Lunes, Dec 1998, *M. Arroyo et al.* 98-0719, 98-0744 (CONC), id., sector quebrada Blanca, Feb 2000, *M. Arroyo et al.* 20-2020 (CONC), id., cajón estero Yerba Loca, Dec 1998, *M. Arroyo et al.* 98-0658 (CONC), id., NE de estero Manzanito, Nov 1999, *M. Arroyo & A. Humaña* 99-5259 (CONC), id., estero Yerba Loca-Manzanito, Jan 1999, *M. Arroyo & A. Humaña* 99-829 (CONC), id., entre cerro Toro y Tollo, Dec 2000, *M. Arroyo & A. Humaña* 20-2342, 20-2374 (CONC); cerros de Conchalí, Nov 1954, *H. Gunckel* 27708 (CONC). **REGION VALPARAÍSO:** Prov. Los Andes: camino internacional Portillo, río Blanco, Nov 1970, *C. Marticorena & E. Weltdt* 568 (CONC). Prov.

Quillota: cerro La Campana, 18 Apr 1971, *O. Zöllner* 4757 (LP), Mar 1931, *A. Garaventa* 1878 (CONC), Feb 1928, *A. Garaventa* 1435 (CONC); cerro La Campana bei Granito, Apr 1971, *O. Zöllner* 4832 (LP).

24. *Leucheria runcinata* D. Don, Philos. Mag. Ann. Chem. 11: 389. 1832. ARGENTINA, Prov. Mendoza; CHILE, Prov. Curicó (at that time the borders between the countries were unclear): "Both flanks of the Chilean Andes, between 32°-35°, Herb. Gillies." *Chabrea runcinata* (D. Don) Hook., Bot. Mag. 70: 4116, tab. 4116. 1844. Type: ARGENTINA, Prov. Mendoza: Andes of Mendoza, *J. Gillies* 120 (lectotype designated here: E00258163 digital image!; isolectotypes: E00258162, GH00009688, K000504377 digital images!). Figures 11I, 35.

Leucheria congesta D. Don, Philos. Mag. Ann. Chem. 11: 389. 1832, **syn. nov.** ARGENTINA, Prov. Mendoza; CHILE, Prov. Curicó (at that time the borders between the countries were unclear): "Both flanks of the Chilean Andes, between 32°-35°, Herb. Gillies." *Lasiorbiza congesta* (D. Don) Kuntze, Revis. Gen. Pl. 1: 350. 1891, **syn. nov.** Type: ARGENTINA, Prov. Mendoza: Andes of Chile, Cuesta del Inga ["Cuesta del Inca" = Puente del Inca], *J. Gillies s.n.* (lectotype designated here: K000504395 digital image!, photograph LP!). CHILE, Cord. de Chillán, Cuesta del Inga, *J. Gillies* 119 (isolectotype: E00249337 digital image!, photograph LP!). Syntype: CHILE, Prov. Cordillera: Andes of Chili, San Pedro Nolasco, *J. Gillies s.n.* (K000504397 digital image!).

Leuceria meyeniana Walp., Nov. Actorum Acad. Caes. Leop.-Carol. Nat. Cur. 19(Suppl. 1): 289. 1843. "Chile: Rio Maipú." *Lasiorbiza meyeniana* (Walp.) Kuntze, Revis. Gen. Pl. 1: 350. 1891, **syn. nov.** Type: CHILE, Metropolitan and Valparaíso Regions: Chile, Rio Maipo, 9000', Mar 1831, *F. J. F. Meyen s.n.* (holotype: B [destroyed] photograph F16054!). Chile, Región Metropolitana de Santiago, provincia Cordillera, San José de Maipo, cajón del río Morales, Jan 1989, *Saavedra & Pauchard* 271 (epitype designated here: CONC 127663!).

Chabrea barrasiana J. Rémy, Fl. Chil. 3: 399. 1847. "Esta preciosa planta se halla cerca de los baños de Cauquenes á poca distancia de los Chacayes." *Lasiorbiza barrasiana* (J. Rémy) Kuntze, Revis. Gen. Pl. 1: 350. 1891, **syn. nov.** *Leuceria barrasiana* (J. Rémy) F. Meigen, Bot. Jahrb. Syst. 18: 439. 1894. *Leuceria barrasiana* (J. Rémy) Reiche, Fl. Chile 4: 422. 1905, **comb. superfl.** Type: CHILE, Prov. Cachapoal: Coquimbo, environs de los Chacayes, 1836, *C. Gay s.n.* (lectotype designated here: P00732684 digital image!). Syntypes: Chile, Coquimbo, dans les rochers dans les endroits humides près des ruisseaux à Malpasso, 2,490 m, *C. Gay* 390 (P!, P00732685 digital image!). Chile, Prov. Coquimbo, 1838, *C. Gay* 390 (P00732686 digital image!).

Chabrea tenerifolia Phil., Linnaea 28: 715. 1858. "Unicum specimen in Andibus prov. Santiago ad litem nivis perpetuae legit orn. Germain." *Lasiorbiza tenerifolia* (Phil.) Kuntze, Revis. Gen. Pl. 1: 350. 1891, **syn. nov.** *Leuceria tenerifolia* (Phil.) Phil., Anales Univ. Chile 87: 102. 1894. *Leuceria barrasiana* (J. Rémy) F. Meigen var. *tenerifolia* (Phil.) Reiche, Fl. Chile 4: 422. 1905. Type: CHILE, Prov. Cordillera: Andes de Santiago, *P. Germain s.n.* (holotype: SGO 60522!).

Chabrea canescens Phil., Linnaea 28: 716. 1858. "In andibus provinc. Santiago crescit." *Lasiorbiza canescens* (Phil.) Kuntze, Revis. Gen. Pl.

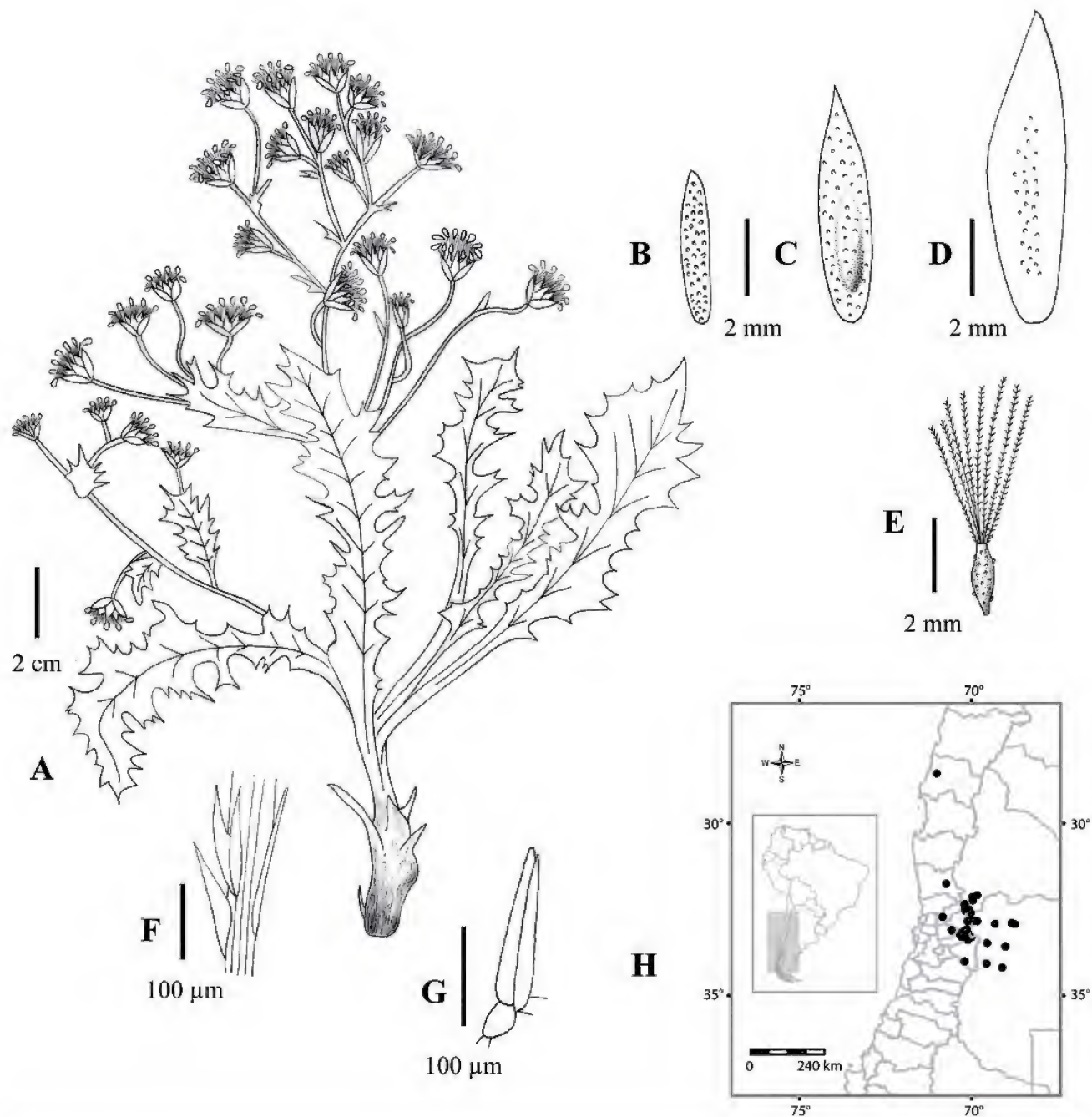


FIGURE 35. *Leucheria runcinata* D. Don. A. Habit. B. Outer phyllary of the involucre. C. Middle phyllary of the involucre. D. Inner phyllary of the involucre. E. Fruit and pappus. F. Detail of pappus bristle. G. Fruit twin trichome. H. Distribution map. A, *Fabris* 1254 (LP); B–E, *R. Spegazzini* 613 (LP); F, G, *Fabris & Marchionni* 2353 (LP).

1: 350. 1891, **syn. nov.** *Leuceria canescens* (Phil.) Reiche, Fl. Chile 4: 426. 1905. Type: CHILE, Prov. Cordillera: Andes de Santiago, R. Philippi *s.n.* (lectotype designated by Crisci [1976:76]: SGO 60520!; isoelectotype: SGO 43901!).

Chabraea coquimbana Phil., Anales Univ. Chile 18: 50. 1861. "Huanta, 4,000 metros sobre el nivel del mar" (plants collected by R. Pearce and G. Volkmann). *Lasiorbiza [coquimbensis] coquimbana* (Phil.) Kuntze, Revis. Gen. Pl. 1: 350. 1891, **syn. nov.** *Leuceria coquimbana* (Phil.) Reiche, Fl. Chile 4: 421. 1905. Type: CHILE, Prov. Elqui: Huanta, 1860, G. Volkmann 77 (holotype: SGO 60514!, photograph LP!).

Chabraea landbeckii Phil., Linnaea 33: 122. 1864. "In Andibus prov. Santiago leg. orn. Landbeck." *Lasiorbiza landbeckii* (Phil.) Kuntze, Revis. Gen. Pl. 1: 350. 1891, **syn. nov.** *Leuceria landbeckii* (Phil.) Reiche, Fl. Chil. 4: 423. 1905. Type: CHILE, Prov. Cordillera: Cord. Las Arañas, Jan 1861, Landbeck *s.n.* (holotype: LP!, LP002139 digital image!).

Chabraea concinna Phil., Linnaea 33: 123. 1864. "In Andibus de Illapel dictis invenit ornat. Volckmann." *Lasiorbiza concinna* (Phil.) Kuntze, Revis. Gen. Pl. 1: 350. 1891, **syn. nov.** *Leuceria concinna* (Phil.) Reiche, Fl. Chil. 4: 422. 1905. Type: CHILE, Prov. Choapa: Andes de Illapel, G. Volkmann *s.n.* (holotype: SGO 60513!, photograph LP!).

Chabraea oligocephala Phil., Anales Univ. Chile 41: 745. 1872, non *Leucheria oligocephala* J. Rémy, 1849 (= *Leucheria tomentosa* (Less.) Crisci). "Se halla igualmente en el valle del Yeso." *Leuceria paucicapitata* Reiche, Fl. Chil. 4: 428. 1905, **nom. nov. pro** *Chabraea oligocephala* Phil. Type: CHILE, Prov. Cordillera: Cordillera de Santiago, Valle del Yeso, Jan 1866, R. Philippi 1139 (holotype: SGO 60521!, photograph LP!; isotype: LP!, LP000861 digital image!).

Leuceria sonchoides Phil., Anales Univ. Chile 87: 104. 1894. "Inhabitat Andes Illapelinas loco dicto La Polcura; aestate 1888 lecta." Type: CHILE, Prov. Colchagua: La Polcura, R. Philippi 2336 (holotype: SGO 60508!, photograph LP!; isotype: LP 75340!, LP002168 digital image!).

Lasiorbiza glomerulata Kuntze, Revis. Gen. Pl. 3(3): 161. 1898. "Chile: 2500 m Paso Cruz." *Leuceria glomerulata* (Kuntze) K. Schum., Bot. Jahresber. (Just) 26(1): 378. 1900. Type: ARGENTINA, Prov. Mendoza: Chile, 2,500 m, Jan 1892, Paso Cruz, O. Kuntze *s.n.* (holotype: NY00180490 digital image!; isotypes: B [destroyed] photograph F 16047!). F!, F0050516F digital image, US!, US00119995 digital image!, photograph LP!; see Distribution and Ecology for *L. rosea*).

Perennial herbs, caulescent, up to 100 cm high, stems sometimes fistulose. Leaves oblanceolate, oblong, obovate, pinnatisect, thistle-like, lobes dentate to lobate-lacerate, oblong, ovate, triangular, acuminate, sometimes slightly lyrate with the upper lobe larger than the lateral ones, midvein cylindrical, subglabrous, glandular-pubescent or slightly araneose adaxially, slightly tomentose abaxially; lower leaves rosulate or subrosulate, 6–20 cm long, 1–8 cm wide, disposed in one or more than one bundle by sprouting rhizome, petiole winged. Capitula more than 15, grouped in lax or dense cymes forming a lax or dense paniculiform synflorescence, branches commonly divaricate. Involucres 4–10(–12) mm high, 3-seriate, phyllaries glandular-pubescent, outer phyllaries shorter, planate, and lanose at the

base, intermediate phyllaries concave, margins scarious, inner phyllaries planate or concave, margins scarious; paleaceous phyllaries present. Florets 25–55, corolla white, pink, lilac, blue. Cypselae pilose, twin trichomes 150–175 μ m long, scarce to absent short glandular biseriate trichomes. Pappus 4–6 mm long, isomorphic, bristles thin and cylindrical, scabrid to barbellate, cilia 125–150 μ m long, white.

DISTRIBUTION AND ECOLOGY. Chile, in Atacama, Coquimbo, Maule (only the types of *L. runcinata*), Metropolitana de Santiago, and Valparaíso Regions, also cited for Ñuble Region (Ríos et al. 2018), and Argentina, in Mendoza and San Juan Provinces; it grows in the Andean mountains, on slopes, in ravines, and in wet soils such as the margins of vegas, and along river shores among rocks, between 1,700 and 3,000 masl.

PHENOLOGY. Collected in flower from December to April.

VERNACULAR NAMES. Blanquillo (Reiche 1905:422).

NOTES.

1. *Leucheria congesta* is included here in the synonymy of *L. runcinata*. Don (1832) had already considered them to be morphologically close, and these species were the only ones of his sectio Propriae characterized by a multiseriate involucre and inner paleaceous phyllaries, scarious at the margins. Crisci (1976) described *L. congesta* as having paleaceous phyllaries and *L. runcinata* as lacking them. The analysis of many specimens, however, shows that this character is variable, and the same specimen can have capitula with paleaceous phyllaries and capitula without them. Philippi (1894:103) established this variation in his description of *L. tenerifolia*. On the other hand, Don (1832) distinguished *L. congesta* from *L. runcinata* by the compact synflorescence of the former and the lax synflorescence in the latter. This feature also can vary in the same specimen, as already noted by Hooker and Arnott (1835:35). Finally, these species have overlapping distributions.
2. *Leucheria landbeckii* was considered a synonym of *L. runcinata* by Teillier (2010), a decision followed here.
3. The inner phyllaries of *L. runcinata* are 7–10 mm long, but occasionally, smaller or larger involucre appear in some specimens. In this case, the thistle-like leaves help to differentiate *L. runcinata* from other species with leaves that are not lyrate and lobes that are entire or dentate but not lacerate.
4. In the field, plants of *L. runcinata* are described as fetid (Reiche 1905; Boelcke et al. 10123, BAB, LP; Weisser 395, CONC; Arroyo et al. 99-1779, CONC), with intense odor (Bonifacino et al. 62, LP) and with bright leaves (Boelcke et al. 9829, BAB, LP).
5. *Leucheria runcinata* resembles *L. bridgesii* and *L. coerulescens* (see Notes for those species).

ADDITIONAL SPECIMENS EXAMINED. ARGENTINA. PROVINCE MENDOZA: dept. Las Heras, Las Cuevas, Mar 1942, Rodrigo 3122 (LP), 14 Feb 1934, R. Pérez Moreau *s.n.*

(LP 75270), 20 Mar 1935, A. Ruiz Leal 3078 (LP), 23 Feb 1945, A. Lourteig 777 (BAB); Paramillo de Las Cuevas, without date, Bettfreund s.n. (LP); Las Cuevas y alrededores, 10 Jan 1908, C. Spegazzini s.n. (BAB 23027, 23996, LP); Las Cuevas, Quebrada de Benjamín Matienzo, 14 Feb 1934, R. Pérez Moreau s.n. (LP), id., Refugio Militar Lamadrid, 10 Jan 1963, O. Boelcke et al. 9729 (BAB, LP); from Las Cuevas to Cristo Redentor, Argentina-Chile border, 10 Feb 1987, T. Stuessy et al. 10391 (LP), Mar 1954, H. Fabris 1254 (LP); Puente del Inca, without date, G. Dawson & A. Ruiz Leal 59 (LP), 3 Jan 1950, O. Paci 170 (LP), Mar 1901, C. Spegazzini s.n. (BAB 2534), Mar 1908, C. Spegazzini s.n. (BAB 24385); Puente del Inca, F.C.T.A. [Ferrocarril Trasandino Argentino], 29 Dec 1930, D. King 391 (BAB); arroyo Horcones, 3 Jan 1950, L. Melis & F. Barkley 20Mz098 (LP); between Puente del Inca and Las Cuevas, 7 Jan 1956, T. Böcher et al. 2182 (LP); Punta de Vacas, Mar 1901, C. Spegazzini s.n. (BAB 2503, 2508); Uspallata, quebrada de Los Arroyitos, 25–26 May 1945, A. Ruiz Leal 10548 (LP); pr. valle de Los Relinchos 6–20 Mar 1938, A. Ruiz Leal 4913 (LP); Quebrada de Matienzo, 26 Feb 1962, A. Ruiz Leal 22074 (LP); dept. Luján, pr. Placet Bayas, Loma Blanca, 5 Jan 1937, A. Ruiz Leal 4295 (LP); dept. San Carlos, Real de los Trece, 17 Jan 1941, A. Ruiz Leal 7154 (LP); dept. Tunuyán, Quebrada de La Horqueta, 19 Dec 1963, F. Roig 4630 (LP); parandinis, 19 Feb 1933, A. Ruiz Leal 1196 (LP); paso del Portillo dicto, pr. Cuesta de los Afligidos, 24 Dec 1933, A. Ruiz Leal 1861 (LP); arroyo Grande, puesto de Gendarmería Nacional El Portillo, 12 Jan 2000, M. Bonifacio et al. 62 (LP); puesto de Gendarmería Alférez Portinari, arroyo de la Cascada Vieja, 20 Jan 1963, O. Boelcke et al. 10123 (BAB, LP). Without locality: FCP [Ferrocarril San Martín], 29 Dec 1930, D. King 360 (LP). PROVINCE SAN JUAN: dept. Calingasta, Río Calingasta, 25 Mar 1937, R. Spegazzini 652 (LP); Manantiales, Jan 1972, H. Fabris & F. Zuloaga 8452 (LP), 1 Mar 1992, R. Kiesling 8050 (MERL); Portezuelo Las Frías, Jan–Feb 1950, A. Ruiz Leal 13014 (LP, MERL); Río Las Totoras, 23 Mar 1937, R. Spegazzini 613 (LP); a lo largo del río Las Totoras, 23 Mar 1937, R. Spegazzini 432 (LP); Trincheras de San Martín, Jan–Feb 1950, A. Ruiz Leal 13015 (LP, MERL); Mondaca, 20 Feb 1980, Gómez et al. 5857 (SI); Yunque, 9 Jan 1976, R. Luti et al. 5541 (SI); Cerro Castaño, Feb 1960, H. Fabris & J. Marchionni 2339 (LP); borde de vega sobre río Pachón, 9 Feb 1977, R. Kiesling 1328, 1422, 1475 (SI), 23 Mar 2004, R. Kiesling 10073 (LP, SI), 10 Jan 1976, R. Luti et al. 5555 (SI); río Colorado, zona Ramada, 9–21 Jan 1951, A. Ruiz Leal 13979 (LP); Valle Hermoso, 22 Nov 1990, R. Kiesling 7596 (MERL); Quebrada Los Avestruces, oeste de Cerro Castaño, H. Fabris & J. Marchionni 2353 (LP).

CHILE. REGION ATACAMA: Prov. Huasco: río Laguna Grande, Feb 1981, M. Arroyo 81-539 (CONC); km 36, río del Estrecho, Jan 1994, G. Arancio et al. 94-227 (CONC). REGION COQUIMBO: Prov. Choapa: Hierba Loca, Feb 1962, C. Jiles P. 4221 (CONC). Prov. Limarí: Ovalle, río Maitén, 19 Feb 1957, J. Cortés Maldonado 36 (CONC); dept. Combarbalá,

Las Arenas, 19 Feb 1965, C. Jiles P. 4552 (CONC); cordillera Gordito de don Carlos Alvarez, Feb 1932, M. Miranda s.n. (CONC 5070); río Tascadero, 10 Dec 1976, C. Jiles P. 6408 (CONC). REGION METROPOLITANA DE SANTIAGO: Prov. Chacabuco: Altos de Chicauma, sector Tranque, Jan 2003, N. García & L. Faúndez 3637 (CONC). Prov. Cordillera: Fierro Carrera, 26 Jan 1930, A. Garaventa 518 (CONC, LP); Fierro Carrera, valle de San Francisco, Jan 1930, G. Looser 1128 (CONC); cajón del río Morales, Feb 1989, Saavedra & Pauchard 271 (CONC); valle del Yeso, estero Salinillas, Mar 2001, S. Teillier 6495 (CONC); camino a Valle Nevado, primeras curvas, 24 Jan 2012, A. Moreira 1786 (CONC). Prov. Santiago: interior del valle del Maipo, Potrero Grande, 31 Dec 1966, O. Zöllner 1391 (LP); Laguna Negra, Jan 1933, Grandjot s.n. (CONC 1094); volcán San José, Feb 1937, Grandjot s.n. (CONC 21221); cerro Manquehue, 3 Dec 1976, M. Elgueta s.n. (CONC 74876); estero de Los Paramillos, afluente del río Olivares, 22 Jan 1980, H. Niemeyer s.n. (CONC 76403); Farellones, 14 Apr 1974, O. Zöllner 7661 (CONC); cerro Abanico, Jan 1951, E. Barros s.n. (CONC 20724); Piuquencillos, valle del río Colorado, Dec 1942, E. Pisano V. et al. 1629 (CONC); Santuario de la Naturaleza de la Yerba Loca, al W de Casa de Piedra, Feb 1999, M. Arroyo & A. Humaña 99-1779 (CONC), camino a cerro La Paloma, Feb 1999, M. Arroyo & A. Humaña 99-1619 (CONC), sector Vegas de las Vacas, 3 Feb 1999, M. Arroyo & A. Humaña 99-1189 (CONC). REGION VALPARAÍSO: Prov. Los Andes: Río Blanco, F.C.T.C. [Ferrocarril Trasandino Chileno], Mar 1927, D. King 417 (LP); Río Blanco, camino a Tres Lagunas, Apr 1973, O. Zöllner 6343 (CONC); Juncalillo, Dec 1935, Milner s.n. (CONC 21236); laguna del Inca, Jan 1981, M. Arroyo 81-280 (CONC); lado W de la laguna del Inca, Feb 2004, J. Panero & B. Crozier 8449 (CONC); Portillo, Laguna del Inca, Mar 1994, S. Teillier & H. Niemeyer 3320 (CONC), Jan 2008, S. Teillier et al. 6230 (CONC); Estación Portillo, F. C. Trasandino, 14–16 Apr 1933, G. Looser 3686 (CONC, LP); cajón del río Colorado, quebrada Torbellino, Feb 2002, S. Teillier 5120 (CONC); Portezuelo Los Bueyes, Feb 2002, S. Teillier 5119 (CONC); laguna Barrosa, cuenca estero Barroso-río Blanco, 29 Apr 2003, G. Mieres s.n. (CONC 165786). Prov. Quillota: cerro Campana, La Gotera, 17 Jan 1937, A. Garaventa 3253 (CONC), 2 Feb 1958, P. Valenzuela s.n. (CONC 49315). Prov. San Felipe de Aconcagua: Portillo, 23 Jan 1938, R. Pérez Moreau s.n. (LP 75417), Jan 1970, J. Crisci 497 (LP); Portillo, faldeos a orillas de la laguna del Inca, 16 Jan 1964, C. Marticorena & O. Matthei 576 (LP); macizo de La Gloria, 16 Feb 1972, O. Zöllner 5408 (LP); Laguna Castro, 20 Feb 1968, O. Zöllner 3106 (LP); Cerro Tres Hermanos, lado N de laguna del Inca, 14 Jan 1970, J. Crisci 460 (LP); Tres Lagunas, cerca del río Blanco, 10 Apr 1971, O. Zöllner 4964 (LP); Cachagua, cerca de la costa, 5 Nov 1975, O. Zöllner 9044 (LP); río Colorado, 25 Feb 1967, O. Zöllner 1390 (LP); Limache, caletones cercanos al Paso de Jorquera, Farellones, 9 Feb 1957, A. Garaventa 5428 (CONC).

25. *Leucheria salinae* (J. Rémy) Hieron., Bol. Acad. Nac. Ci. Córdoba 4: 50. 1881 (as *salina*). *Chabrea salina* J. Rémy, Fl. Chil. 3: 393, tab. 41. 1847. “Esta preciosa especie se cria entre las rocas de las cordilleras de los Patos provincia de Coquimbo, y particularmente á la Quebrada de la Barona, á 3610 metros de altura.” *Lasiorbiza salina* (J. Rémy) Kuntze, Revis. Gen. Pl. 1: 350. 1891. *Leuceria salina* (J. Rémy) Dusén, Rep. Princeton Univ. Exped. Patagonia, Botany 8(2): 32. 1903, *comb. superfl.* *Leuceria salina* (J. Rémy) Reiche, Fl. Chile 4: 418. 1905, *comb. superfl.* Type: CHILE, Prov. Limari: Entre les roches isolées suivant les roches du tauffees assez terreés, à la Quebrada Barona, cordillère de Los Patos, 3,610 m, C. Gay 426 (lectotype designated here: P00732689 digital image!). Syntypes: Prov. Coquimbo, haute cordillère de Los Patos, C. Gay 452 (P00732687 digital image!). Chili, Province de Coquimbo, le long des ruisseaux, les hautes cordillères de Los Patos, C. Gay 449 (P!, P00732690 digital image!). Chili, C. Gay s.n. (B [destroyed] photograph F0BN016058!, GH!, GH00004657, K000504400, K000504401, M0161482, M0171486, M0171487 digital images!, P!, P00732688 digital image!). Figure 36.

Chabrea salinasii Phil. var. *bipinnatifida* Phil., Anales Univ. Chile 36: 177. 1870. “Se halla igualmente en lugares mui [sic] elevados.” Type: ARGENTINA, Prov. Mendoza: Andes inter Mendoza et Santa Rosa, 1868/1869, R. Philippi 1134 (lectotype designated here: SGO-43912!, photograph LP!; islectotype: SGO-62926).

Senecio pteropogon Griseb., Abh. Königl. Ges. Wiss. Göttingen 24: 207. 1879. “S.: Nevado del Castillo, alt. 10–15000.” *Leucheria pteropogon* (Griseb.) Cabrera, Darwiniana 9: 62. 1949, *syn. nov.* Type: ARGENTINA, Prov. Salta: Dept. La Caldera, alrededores del Nevado del Castillo, 19–23 Mar 1873, P. G. Lorentz & G. H. E. W. Hieronymus 101 (holotype: GOET001799 digital image!; isotypes: B [destroyed] photograph F 15713!, CORD00006518 digital image!, LP!, LP002169 digital image!, SI).

Leucheria salina subsp. *zoellneri* Crisci, Darwiniana 20: 62. 1976, *syn. nov.* Type: CHILE, Prov. Santiago: interior del Valle del Maipo, Potrero Grande, 3,000 m, 31 Dec 1966, O. Zöllner 1393 (holotype: LP!, LP002164 digital image!).

Perennial herbs, caulescent, 3–25 cm high. Leaves oblanceolate, pinnatisect, bipinnatisect, lobes partite, linear, oblong, midvein wide, planate, glandular-pubescent in both faces; lower leaves rosulate, 2–20 cm long, 0.8–2.2 cm wide, petiole winged. Capitula 3–15, grouped in dense or lax cymes forming a corymbiform synflorescence, sometimes solitary in dwarf plants. Involucres 5–10(–12) high, 3-seriate, phyllaries planate, outer phyllaries glandular-pubescent, intermediate phyllaries with margins scarious, glandular-pubescent, inner phyllaries glabrous; paleaceous phyllaries absent. Florets 40–50, corolla white, pink. Cypselae glandular-pilose, twin trichomes ~50 µm long, glandular uniseriate trichomes. Pappus 4–6(–6.5) mm long, isomorphic, bristles wide and flat, plumose, cilia ~300 µm long, white.

DISTRIBUTION AND ECOLOGY. Chile, in Antofagasta, Arica-Parinacota, Atacama, Coquimbo, Metropolitana

de Santiago, and Valparaíso Regions, also cited for O'Higgins Region (Ríos et al. 2018), and Argentina, in Catamarca, Jujuy, La Rioja, Mendoza, San Juan, and Tucumán Provinces and probably also in Neuquén Province (Chiapella and Ezcurra 1999); it grows in the Andes Mountains, in rocky soils, among the rocks, or at rock shadows, from 2,000 to 4,000 masl.

PHENOLOGY. Collected in flower from December to April; some plants found with flowers in June.

VERNACULAR NAMES. Yerba del ciervo (Crisci 1976). **NOTES.**

1. Because this species is dedicated to Eulogio Salina, the correct epithet of the name of the species, according to the ICN (Turland et al. 2018, Article 60, Recommendation 60C, 1a), must be *Leucheria salinae* instead of the traditionally used *L. salina*. This change was already proposed by Philippi (1870).
2. The analysis of many specimens of *L. salinae* shows that the degree of partition of the leaf is highly variable and continuous. Therefore, *Leucheria salinae* subsp. *zoellneri*, distinguished by the broader, bipinnatisect leaves, is here considered a synonym of *L. salinae*.
3. Some Chilean specimens (e.g., Jiles 2971, Teillier et al. 2402, Zöllner 1430, CONC) have bigger capitula, thus approaching *L. daucifolia* (see Notes for *L. daucifolia*). Until microscope observation of the cypselae type of trichomes (glandular biseriate in *L. daucifolia* and glandular uniseriate in *L. salinae*) and cilia length of the pappus (600–650 µm long in *L. daucifolia* and ~300 µm long in *L. salinae*) is performed in these specimens, we maintain them in *L. salinae* on a geographic basis.
4. The plants of this species are characterized by their fetid odor (Rémy 1847; Weddell 1855; Reiche 1905), similar to urine (Pérez Moreau 162, LP).
5. *Leucheria salinae* resembles *L. eriocephala* (see Notes for *L. eriocephala*).

ADDITIONAL SPECIMENS EXAMINED. **ARGENTINA.** PROVINCE CATAMARCA: dept. Belén, Sierra de Granadillas, Quebrada de los Potrerillos, 1 Feb 1952, H. Sleumer & F. Vervoorst 2633 (LP). PROVINCE JUJUY: dept. Susques, cerro Tuzgle, 5 Mar 1967, D. Wierner 148 (LP); dept. Valle Grande, Caspalá, 12 Mar 1967, H. Fabris & J. Crisci 6997 (LP), 3 Mar 1940, A. Burkart et al. 11824 (LP); Ciénaga Grande, entre Abra Colorada y Caspalá, 11 Mar 1967, H. Fabris & J. Crisci 6886, 6892 (LP). PROVINCE LA RIOJA: dept. Gral. Sarmiento, quebrada La Hedionda, 7 Feb 1947, J. Hunziker 2207 (LP); Puesto El Alto, 26 Jan 1949, A. Krapovickas & J. Hunziker 5608 (BAB). PROVINCE MENDOZA: dept. Iglesia, Reserva de San Guillermo, cerro El Pedregal, 14 Apr 1984, J. Pujalte 305 (LP); dept. Las Heras, Las Cuevas y alrededores, 24 Feb 1908, C. Spegazzini s.n. (BAB 23248, 23309), 10 Jan 1963, O. Boelcke et al. 9756 (LP), 20 Mar 1935, A. Ruiz Leal 3206 (LP); entre Las Cuevas y Cristo Redentor, June 1950, A. Ruiz Leal 6569 (LP), Feb–Mar 1940, A. Ruiz Leal & G. Dawson 74 (LP); Las Cuevas,

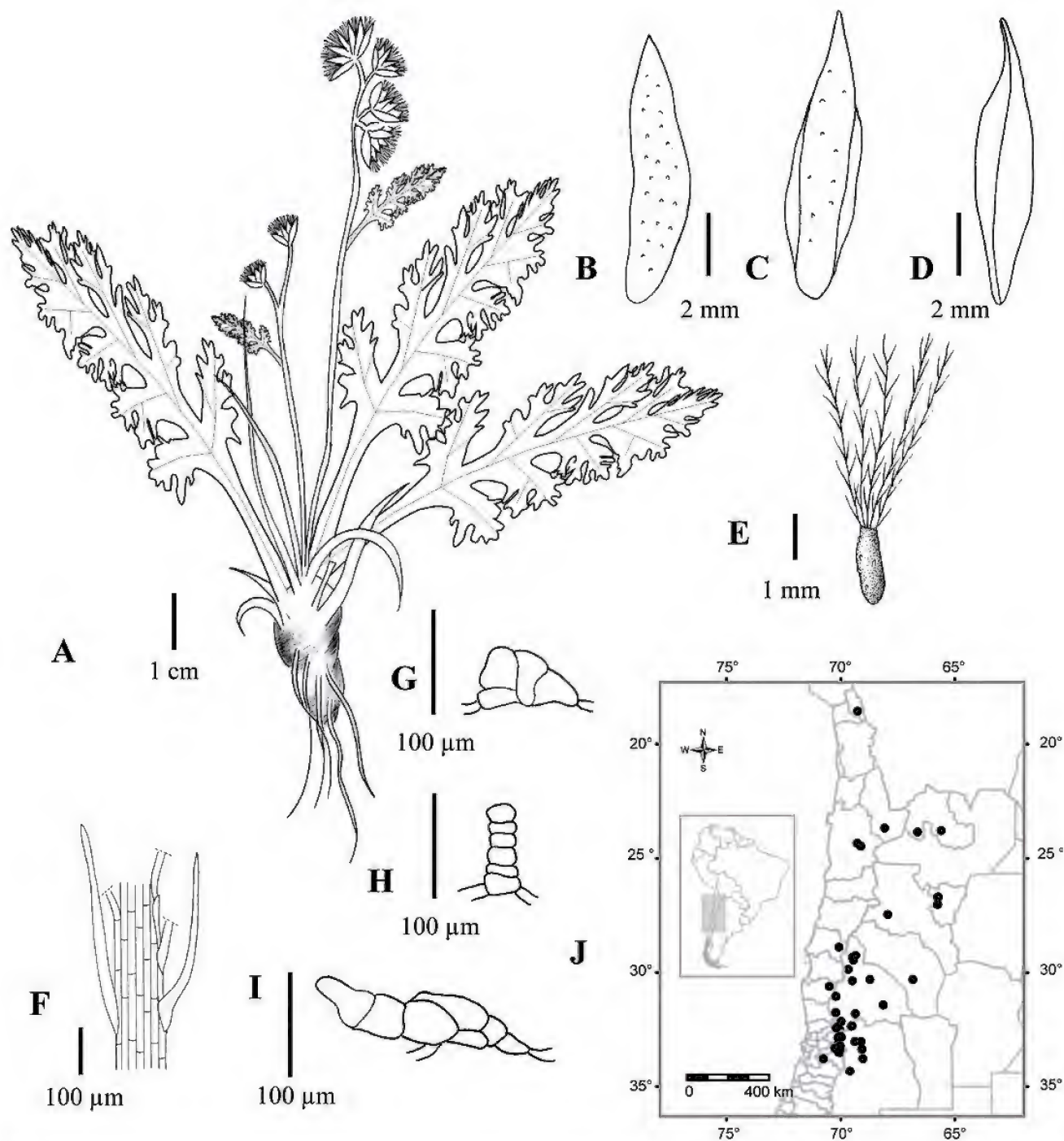


FIGURE 36. *Leucheria salinae* (J. Rémy) Hieron. A. Habit. B. Outer phyllary of the involucre. C. Middle phyllary of the involucre. D. Inner phyllary of the involucre. E. Fruit and pappus. F. Detail of pappus bristle. G. Fruit twin trichome. H. Fruit uniseriate glandular trichome. I. Fruit uniseriate glandular trichome, adpressed to the fruit surface. J. Distribution map. A, Ruiz Leal 1163 (LP); B–I, Fabris & Zuloaga 8397 (LP).

quebrada Benjamín Matienzo, 14 Feb 1934, *R. Pérez Moreau s.n.* (LP 75300); in andinis pr. Puente del Inca, Apr 1950, *A. Ruiz Leal* 1163 (LP); arroyo Tambillos, 1 Apr 1945, *J. Semper* 10076 (LP); dept. Luján de Cuyo, pr. cerro El Salto, 25 Dec 1936, *J. Semper* 4265 (LP); cerro del Plata, 9 Jan 1927, *D. King* 192 (LP); Cacheuta y alrededores, 24 Feb 1908, *C. Spegazzini s.n.* (BAB 23308, 23343); dept. Malargüe, Alto Valle, Calmuco, 14 Feb 1942, *A. Burkart et al.* 14408 (LP); Calmuco, 14 Feb 1942, *G. Covas* 425 (LP); dept. San Carlos, quebrada de La Cruz de Piedra, 20 Jan 1965, *A. Ruiz Leal* 23582 (LP); Pampa de las Osamentas, estancia Llanca, 18 Jan 1941, *A. Ruiz Leal* 7171 (LP); inmediaciones de las vegas de Llanca-río Patiño, Apr 1950, *A. Ruiz Leal* 7924 (LP); dept. Tunuyán, iter andium Paso Portillo dicto, in rupestribus pr. Cuesta de los Afligidos, 24 Dec 1953, *A. Ruiz Leal* 1914, 1919 (LP); dept. Tupungato, al pie del Tupungato, en el nacimiento del Colorado, Feb 1952, *A. Ruiz Leal* 14648 (LP). PROVINCE SAN JUAN: dept. Calingasta, Espinacito, Las Frías, río Las Leñas, Jan–Feb 1949, *A. Ruiz Leal* 11946 (LP, MERL); Reserva El Leoncito, 9 Apr 1999, *Haene* 1993 (SI); Quebrada de las Burras, 14 Jan 1990, *R. Kiesling* 7462 (MERL); Quebrada del Fierro, 20 Feb 1988, *R. Kiesling* 6915 (MERL); Pachón, Feb 1977, *R. Kiesling* 1433 (MERL); Paso de los Patos, *F. Roig* 7 (MERL); dept. Iglesia, zona del río de Las Taguas, quebrada Potrerillos, cerro Pelado, 1 Feb 2000, *S. Teillier & C. Márquez* 4499 (SI); camino a Portezuelo de Agua Negra, Jan 1972, *H. Fabris & F. Zuloaga* 8397 (LP, SI), 24 Feb 1992, *R. Kiesling* 7999 (MERL); quebrada del Agua Negra, 10 Jan 1976, *A. Cabrera et al.* 27027 (BAB); La Laguna, cerca de Vacas Heladas, 9 Jan 1930, *R. Pérez Moreau* 162 (LP); reserva San Guillermo, 16 Dec 1981, *J. Pujalte* 53 (SI); Arroyo del Salto, 15 Jan 1930, *R. Pérez Moreau* 203 (LP); valle del Cura, 22 Jan 1981, *R. Kiesling* 3168 (MERL). PROVINCE TUCUMÁN: dept. Tafí del Valle, Quebrada del Real, 28 Jan 1907, *Dinelli* 495 (LP); cumbres Calchaquies, cerro El Negrito, 28 Apr 1948, *A. Krapovickas & W. Barrett* 4676 (BAB).

CHILE. REGION ANTOFAGASTA: Prov. Antofagasta: camino San Pedro-Tatio-Lindsor, 9 Jan 1957, *E. Navas* 2144 (LP). Prov. El Loa: géiseres del Tatio, 1961, *M. Ricardi et al.* 492 (CONC); cerro Sairecabur, 1992, *Baumann* 8 (CONC); camino a Portezuelo del Cajón, cerro Toco, ladera N, 3 Apr 1997, *M. Arroyo et al.* 97-016, 97-025 (CONC); cerro Miñiques, 1993, *Baumann* 186 (CONC). **REGION ARICA Y PARINACOTA:** Prov. Parinacota: camino desde Pacollo hasta Nevados de Putre, Ruinas de Taapaca, 15 Apr 1984, *M. Arroyo* 84-845 A (CONC); cerro Choquelimpie, 19 Apr 1984, *M. Arroyo* 84-905 (CONC). **REGION ATACAMA:** Prov. Huasco: Quebrada Cantarito, Feb 1981, *M. Arroyo* 81-614 (CONC), Jan 1983, *C. Marticorena et al.* 83-460 (CONC). **REGION COQUIMBO:** Prov. Limarí: dept. Ovalle, cordillera Gordito, 30 Jan 1954, *C. Jiles* P. 2564 (LP); cordillera de Ovalle, río Moztazal, Feb 1956, *C. Jiles* 2971 (CONC); San Miguel, 13 Jan 1959, *C. Jiles* 3638 (CONC); Gordito, Jan 1954, *C. Jiles* 2546 (CONC). **REGION METROPOLITANA DE SANTIAGO:** Prov. Maipo: cajón del Maipo, Jan 1980, *H. Niemeyer s.n.* (CONC 65469). Prov. Santiago: San

Ramón, Jan 1967, *O. Zöllner* 1430 (CONC); cima del cordón Rubillas, Parque Nacional El Morado, cordillera de los Andes, Jan 1991, *S. Teillier et al.* 2402 (CONC); Farellones, La Parva, Jan 1991, *Ruthsatz* 6995 (CONC); Santuario Natural de la Yerba Loca, cuenca estero La Leonera, Feb 2000, *M. Arroyo et al.* 20-1451 (CONC); río Colorado, Jan 1930, *F. Behn s.n.* (CONC 21231); subida al Portezuelo del Cepo, Mar 1956, *Schlegel* 1087 (CONC); El Volcán, Feb 1947, *H. Gunkel* 20683 (CONC). **REGION VALPARAÍSO:** Prov. Los Andes: entre estación Caracoles y Cristo Redentor, Apr 1933, *G. Looser* 67007 (CONC); Caracoles, Jan 1964, *C. Marticorena & O. Matthei* 557 (CONC). Prov. San Felipe de Aconcagua: valle de Alista, 19 Feb 1972, *O. Zöllner* 5497 (LP); Portillo, Feb 1951, *M. Ricardi* 1207 (CONC).

26. *Leucheria scrobiculata* D. Don, Philos. Mag. Ann. Chem. 11: 389. 1832. ARGENTINA, Prov. Mendoza; CHILE, Prov. Curicó (at that time the borders between the countries were unclear): “Both flanks of the Chilean Andes, between 32°–35°, Herb. Gillies.” *Chabraea scrobiculata* (D. Don) DC., Prodr. 7: 59. 1838. *Lasiorrhiza scrobiculata* (D. Don) Kuntze, Revis. Gen. Pl. 1: 350. 1891. *Lasiorrhiza scrobiculata* (D. Don) Macloskie, Rep. Princeton Univ. Exp. Patagonia, Botany 8(2): 889. 1906, *comb. superfl.* Type: ARGENTINA, Prov. Mendoza: Andes du Chili, La Cuesta del Inga [“Cuesta del Inca” = Puente del Inca], *J. Gillies* 43 (lectotype designated here: K000504402 digital image!; isolectotypes: K000504404, E00249429 digital images!, OXF photograph LP!). Figures 11H, 37.

Chabraea glabra DC., Prodr. 7: 59. 1838. “In Andibus omnibus verisim. Chilensibus observavit cl. Née.” *Lasiorrhiza glabra* (DC.) Kuntze, Revis. Gen. Pl. 1: 350. 1891. *Leuceria scrobiculata* D. Don var. *glabra* (DC.) Hauman, Anales Soc. Ci. Argent. 86: 323, tab. 24, fig. 6. 1918. Type: CHILE: Dans Andibus cordilieres, without leg. [probably *Née s.n.*] (holotype: G-DC00492948 digital image!). The label does not cite a collector, but it is written in Née’s handwriting (cf. Vazquez Pardo et al. 2015:720, 736).

Mimela pedicularifolia Phil., Anales Univ. Chile 27: 336. 1865. “Prope la Guardia in prov. Mendocina invenit orn. Max. Landbeck.” Type: ARGENTINA, Prov. Mendoza: La Guardia, *M. Landbeck s.n.* (holotype: SGO 60863!).

Chabraea scrobiculata (D. Don) DC. var. *pentacephala* Phil., Anales Univ. Chile 43: 479. 1873. CHILE, Prov. Santiago: “Cordillera de la provincia de Santiago [collector unknown].” Type: Cordilières de Santiago, 1856/1857, *P. Germain s.n.* (probable holotype: P!, P03733342 digital image!). See Notes.

Perennial herbs, scapose, 3–10 cm high. Leaves elliptic, obovate, pinnatisect, lobes entire, ovate, sometimes bipinnatisect with the segments lobulate, imbricate, margin often slightly involute, midvein wide, planate, glabrous or slightly glandular-pubescent in both faces; lower leaves rosulate, 1–8 cm long, 0.3–0.6 cm wide, disposed in one or more than one bundle by sprouting rhizome, long petiole winged. Capitula solitary, sometimes 2 by scape bifurcation, usually 1–8 capitula per

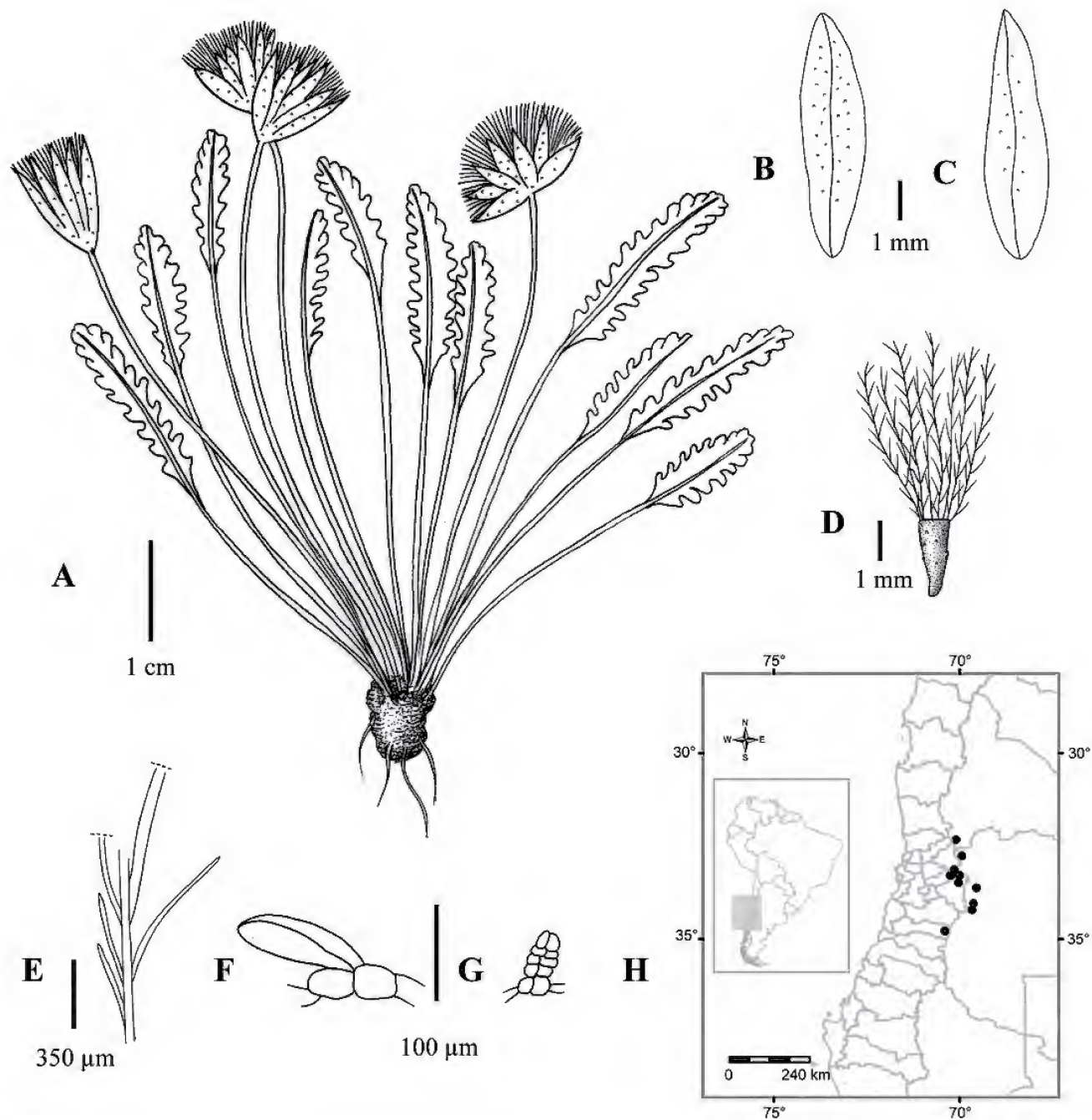


FIGURE 37. *Leucheria scrobiculata* D. Don. A. Habit. B. Outer phyllary of the involucre. C. Inner phyllary of the involucre. D. Fruit and pappus. E. Detail of pappus bristle. F. Fruit twin trichome. G. Fruit glandular biseriate trichome. H. Distribution map. A–G, *Serra* 62 (LP).

plant. Involucres 6–9 mm high, 2-seriate, phyllaries subequal, glandular-pubescent, outer phyllaries planate or concave, inner phyllaries planate; paleaceous phyllaries absent. Florets 25–30, corolla white, pink, blue. Cypselae pilose, twin trichomes ~30 µm long, scarce glandular biseriate trichomes. Pappus 5–6 mm long, isomorphic, bristles wide and flat, long plumose, cilia ~700 µm long, white.

DISTRIBUTION AND ECOLOGY. Chile, in Metropolitana de Santiago, O'Higgins, and Valparaíso Regions, and Argentina, in San Juan and Mendoza Provinces; it inhabits the Andes Mountains, on slopes and margins of vegas, from 3,000 to 4,200 masl.

PHENOLOGY. Collected in flower from December to April.

VERNACULAR NAMES. Unknown.

NOTES.

1. It is probable that specimen P03733342 is the type of *Chabrea scrobiculata* var. *pentacephala*, a specimen that could not be located at SGO by Muñoz Pizarro (1960:12, 134) and Crisci (1976). The imprecise locality in the label of this specimen (the mountain ranges of Santiago) is in agreement with that of the protolog. Philippi (1873) mentioned the names of the collectors for most of the species that he described in his paper about the new specimens incorporated in SGO, but this variety was one of the exceptions. According to the label, this specimen was collected by the French entomologist Philibert Germain, who deposited his collections at SGO. There was a serious conflict between R. A. Philippi and Germain, initiated by the removal of Germain's position at the Museo Nacional de Santiago in Chile. This conflict generated some consequences for some SGO specimens. First, Germain sold part of his plant collections, and second, there was a trade of SGO specimens with other herbaria because of work conflicts and budget problems (Schell 2013). We presume that the type specimen of this variety was collected by Germain and moved from SGO to P after Philippi's description.

2. *Leucheria scrobiculata* resembles *L. eriocephala* (see Notes for *L. eriocephala*).

ADDITIONAL SPECIMENS EXAMINED. ARGENTINA.

PROVINCE MENDOZA: dept. Las Heras: Los Penitentes, cerca de Puente del Inca, 29 Dec 1930, *D. King* 49 (LP), 386 (BAB); arroyo Tambillo, 1 Apr 1945, *A. Ruiz Leal* 10076 (LP); dept. San Carlos, laguna Diamante, El Paramillo, 18 Jan 1963, *O. Boelcke et al.* 10054 (BAB, LP); camino a la laguna Diamante, Pampa de los Avetruces, 2 Feb 1950, *O. Boelcke* 4078 (LP); laguna de Diamante, cerro de la laguna, 15 Jan 1952, *L. Serra* 31 (LP); Pampa de las Osamentas, estancia Llanca, 18 Jan 1941, *A. Ruiz Leal* 7185 (LP); arroyo de Los Leones, 15 Jan 1949, *A. Ruiz Leal* 11743 (LP); quebrada de La Cruz de Piedra, 20 Jan 1965, *A. Ruiz Leal* 23561 (LP); arroyo de la Quebrada Casa de Piedra, 17 Jan 1952, *L. Serra* 62 (LP);

dept. San Rafael, Los Molles, arriba del Cuchillo, 31 Dec 1949, *H. Sleumer* 681 (LP); sierra del Nevado, 22 Jan 1974, *O. Boelcke et al.* 15922 (BAB); dept. Tunuyán, iter andium Paso del Portillo dicto, pr. Cuesta de los Afligidos, 24 Dec 1933, *A. Ruiz Leal* 1906 (LP); valle del Alto Tunuyán, pr. Real de Contreras, 26 Dec 1933, *A. Ruiz Leal* 1970 (LP). Without locality: FCP [Ferrocarril San Martín], 29 Dec 1930, *D. King* 359 (LP). **PROVINCE SAN JUAN:** dept. Calingasta, Espinacito, Las Trincheras, río Las Leñas, 10 Feb 1949, *A. Ruiz Leal* 11957 (LP); Real de las Frías, *F. Roig* 4 (MERL).

CHILE. REGION LIBERTADOR BERNARDO O'HIGGINS: Prov. Colchagua: río Tinguirrica, cerca de los Baños El Flaco, 19 Feb 1966, *O. Zöllner* 971 (LP); Termas del Flaco, Feb 1966, *O. Zöllner* 1066 (CONC). **REGION METROPOLITANA DE SANTIAGO:** Prov. Cordillera: Paso de Maipo, sector Picos Bayos, Mar 2006, *Mieres s.n.* (CONC 166158). Prov. Santiago: interior del valle de Maipo, Potrero Grande, 31 Dec 1966, *O. Zöllner* 1392 (LP); cerro del Plomo, Feb 1950, *Morales s.n.* (CONC 93754); río Colorado, Jan 1930, *F. Behn s.n.* (CONC 21232); San Ramón, Jan 1967, *O. Zöllner* 1429 (CONC); Lo Valdés, cordillera de los Andes, Feb 1950, *E. Barros s.n.* (CONC 93753). **REGION VALPARAISO:** Prov. San Felipe de Aconcagua: río Leiva, 28 Feb 1969, *O. Zöllner* 5327 (CONC, LP).

27. *Leucheria suaveolens* (d'Urv.) Speg., Revista Fac. Agron. Univ. Nac. La Plata 3: 538. 1897. *Perdicium suaveolens* d'Urv., Fl. Iles Malouin.: 43. 1825. "In apricis frequens [specimens collected in November 1822, by J. S. C. D. d'Urville]." *Chabrea suaveolens* (d'Urv.) DC., Prodr. 7: 59. 1838. *Lasiorrhiza suaveolens* (d'Urv.) Macloskie, Rep. Princeton Univ. Exp. Patagonia, Botany 8(2): 891. 1906. *Leuceria suaveolens* (d'Urv.) Skottsbo., Wiss. Erb. Schwed. Südpolar-Exp. 4: 51. 1909, *comb. superfl.* *Leucheria suaveolens* (d'Urv.) B. L. Rob., Proc. Amer. Acad. Arts 49: 516. 1913, *comb. superfl.* *Leuceria suaveolens* (d'Urv.) Druce, Rep. Bot. Exch. Cl. Brit. Isles: 632. 1916 (1917), *comb. superfl.* Type: ARGENTINA, Falkland Islands (Islas Malvinas): I. Soledad, *D. d'Urville* 66 (lectotype designated here: P!, P00732700 digital image!). Syntypes: Argentine, Iles Malouines, *D. d'Urville s.n.* (P03733249, P03733254 digital images!). Without locality, *d'Urville s.n.* (P03733248 digital image!). Figure 38.

Lasiorrhiza ceterachifolia Cass., Dict. Sci. Nat. (ed. 2) 43: 80. 1826. ARGENTINA, Falkland Islands (Islas Malvinas): "Nous avons fait cette description, en Septembre 1825, sur un échantillon sec, lors inconnu, recueilli par M. d'Urville dans les îles Malouines, et donné à M. Desfontaines par ce savant voyageur." Type: It could be a *nomen superfluum*. Casini (1826), probably unaware of the publication of d'Urville (*Flore des Iles Malouines*), redescribed one specimen collected by d'Urville in Islas Malvinas. It is not possible to know whether it is a different specimen from those used by d'Urville when he described *Perdicium suaveolens*.

Lasiorrhiza viscosa Cass., Dict. Sc. Nat. (ed. 2) 43: 81. 1826. ARGENTINA, Falkland Islands (Islas Malvinas): "Nous avons fait cette description, chez M. Desfontaines, sur un échantillon, sec inconnu, rapporté,

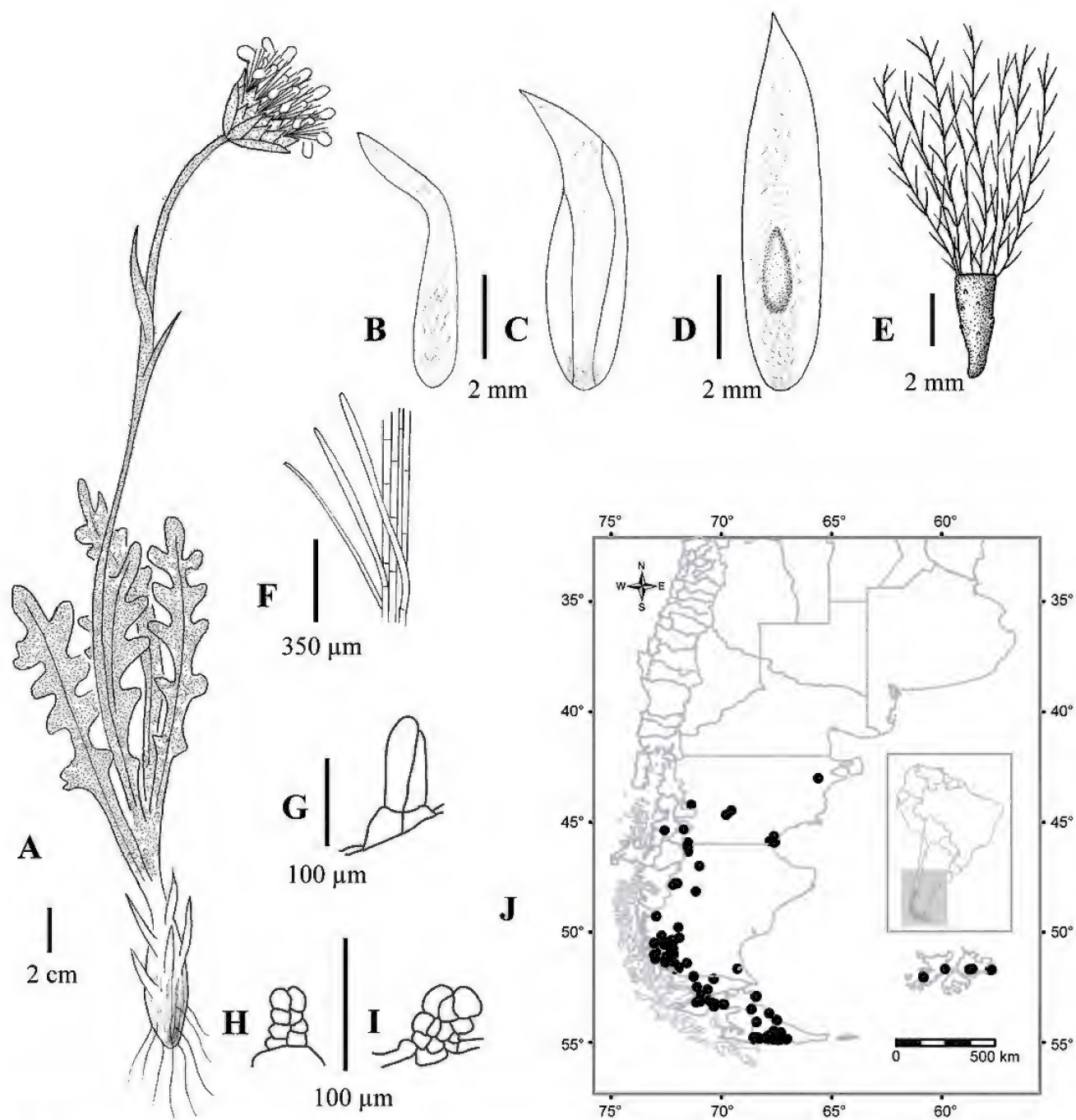


FIGURE 38. *Leucheria suaveolens* (d'Urv.) Speg. A. Habit. B. Outer phyllary of the involucre. C. Middle phyllary of the involucre. D. Inner phyllary of the involucre. E. Fruit and pappus. F. Detail of pappus bristle. G. Fruit twin trichome. H. Fruit glandular biseri-ate trichome. I. Fruit glandular multiseri-ate trichome. J. Distribution map. A, F–H, Moore 519 (LP); B–E, Correa & Pérez Moreau 1916 (LP); I, Moore & Goodall 200 (LP).

comme le précédent [*Lasiorrhiza ceterachifolia*], des îles Malouines par M. d'Urville." Type: The same case as above.

Leucheria gossypina Hook. & Arn., Companion Bot. Mag. 2: 43. 1836. "East Falkland islands, C. Darwin, Esq. (n. 355)." *Lasiorrhiza gossypina* (Hook. & Arn.) Macloskie, Rep. Princeton Univ. Exp. Patagonia, Botany 8(2): 889. 1906. Type: ARGENTINA, Falkland Islands (Islas Malvinas): East Falkland Island, *Prof. Henslow 355* (lectotype designated by Porter [1986:60]: E00070233 digital image!; isoelectotype: K000504412 digital image!).

Picris macloviana d'Urv. ex DC., Prodr. 7: 59. 1838, *nom. nud. pro syn.*

Chabrea suaveolens (d'Urv.) DC. var. *pinnatifida* Sch. Bip., Flora 38: 121. 1855, *syn. nov.* "Pr. Sandy Point [Punta Arenas] in arenosis maritimis, Nov. Lechl. pl. magell. n. 1047a." Type: CHILE, Prov. Magallanes: Prope Sandy Point, in arena ad lit. maris, Nov without year, *W. Lechler 1047a* (lectotype designated here: PI, P03733289 digital image!; isoelectotypes: PI, P03733288, P03733291 pro parte [two plants: one at the bottom and one at the center right; the sheet also has specimens of *Lechler 1047*, see *Chabrea suaveolens* var. *integrifolia*], digital images!).

Chabrea suaveolens (d'Urv.) DC. var. *integrifolia* Sch. Bip., Flora 38: 121. 1855, *syn. nov.* "Pr. Sandy Point [Punta Arenas] in arenosis maritimis, Nov. Lechl. pl. magell. n. 1047." Type: CHILE, Prov. Magallanes: In arenosis ad lit. maris pr. Sandy Point, Oct without year, *W. Lechler 1047* (lectotype designated here: NY!, NY00163268 digital image!; isoelectotypes: PI, P03733290 digital image!, P03733291 pro parte [three plants in the upper part of the herbarium sheet; the others correspond to var. *pinnatifida*], P03733295 digital images!).

Chabrea integrifolia Phil., Anales Univ. Chile 41: 744. 1872, *nom. illeg. hom.*, non *Chabrea integrifolia* Phil., 1856 (= *Leucheria integrifolia* (Phil.) Crisci). "Se cria en el estrecho de Magallanes, cerca de la colonia chilena." *Leucheria integrifolia* (Phil.) Reiche, Fl. Chil. 4: 420. 1905, *comb. illeg.*, non Phil., 1856 (= *Leucheria integrifolia* (Phil.) Crisci). Type: CHILE, Prov. Magallanes: Magallanes, aest. 1864, *Ortega s.n.*, herb. F. Philippi 1141 (lectotype designated by Crisci [1976:41]: SGO 60511!, photograph LP!; isoelectotypes: K000504387 digital image!, LP!, LP000859!).

Leucheria hahnii Franch., Miss. Sci. Cape Horn, Bot. 5: 349, tab. 3. 1889, *syn. nov.* "Canal du Beagle, Lapataia, dans la plaine, 28 janvier 1883 (Dr. Hahn, n° 86 et 89)." *Lasiorrhiza hahnii* (Franch.) Macloskie, Rep. Princeton Univ. Exp. Patagonia, Botany 8(2): 889. 1906. Type: ARGENTINA, Prov. Tierra del Fuego, Antártida e Islas del Atlántico sur: Canal du Beagle, Lapataya, plaine, 28 Jan 1883, *H. Hahn 89* (lectotype designated by Crisci [1976:41]: PI, P00732658!). Syntype: Canal du Beagle, Lapataya, plaine, 28 Jan 1883, *H. Hahn 86* (P00732659 digital image!).

Leucheria fuegina Phil., Anales Univ. Chile 87: 98. 1894. "Habitat in Fuegia orientali, attulit musei famulus Paulus Ortega" (Argentina and Chile have adjacent provinces named Tierra del Fuego). *Lasiorrhiza fuegina* (Phil.) Kuntze, Revis. Gen. Pl. 3(3): 161. 1898. Type: ARGENTINA, Prov. Tierra del Fuego, Antártida e Islas del Atlántico sur; CHILE, Prov. Tierra del Fuego: Fuegia, Feb 1879, *Ortega s.n.*, herb. F. Philippi 2245 (lectotype designated here: SGO 43992!, photograph LP!; isoelectotypes: LP 75396!, LP002136 digital image!, SGO 60497!).

Leucheria lanata Albov, Revista Mus. La Plata 7: 374. 1896. "Hauteurs au-dessus d'Ushuaia, prairies alpines humides, vers 550–600 m.

d'alt. (N. A. [Nikolai Alboff] 1896, n° 416–425." *Lasiorrhiza lanata* (Albov) Macloskie, Rep. Princeton Univ. Exp. Patagonia, Botany 8(2): 890. 1906. *Leucheria hahnii* Franch. var. *lanata* (Albov) Cabrera, Fl. Patagónica, Colecc. Ci. Inst. Nac. Tecnol. Agropecu. 8(7): 362. 1971. Type: ARGENTINA, Prov. Tierra del Fuego, Antártida e Islas del Atlántico sur: Hauteurs an-dessus [sic] d'Ushuaia, 550–600 m s. m., Feb 1896, *N. Alboff 424* (lectotype designated here: LP 6064!, LP 002157 digital image!). Syntypes: Hauteurs an-dessus [sic] d'Ushuaia, 550–600 m s. m., Feb 1896, *N. Alboff 417* (LP 6063!, LP002151 digital image!), 418 (LP 6059!, LP002156 digital image!), 419 (LP 6062!, LP002153, LP002154, LP002154 digital images!), 420 (LP 6061!, LP002160 digital image!), 421 (LP 6065!, LP002159 digital image!), 422 (LP 6060!, LP002158 digital image!).

Leucheria lanata Albov fo. *virescens* Albov, Revista Mus. La Plata 7: 374. 1896. "Hauteurs de la rive droite du torrent 'Ushuaia', région alpine (N. A. [Nikolai Alboff] 1896, n° 426." Type: ARGENTINA, Prov. Tierra del Fuego, Antártida e Islas del Atlántico sur: Ushuaia, Hauteurs au-dessus de la rive droite du torrent Ushuaia, région alpine, 29 Feb 1896, *N. Alboff 426* (lectotype designated here: LP 75335!, LP002152 digital image!; isoelectotype: LP 6066!, LP002155 digital image!).

Leucheria gracilis Albov, Revista Mus. La Plata 7: 375. 1896. "Vallée de l'Oliveia [Olivia], forêts inférieures, 150–200 m. (N. A. [Nikolai Alboff] 1896, n° 427–433)." *Lasiorrhiza gracilis* (Albov) Macloskie, Rep. Princeton Univ. Exp. Patagonia, Botany 8(2): 889. 1906, *syn. nov.* Type: ARGENTINA, Prov. Tierra del Fuego, Antártida e Islas del Atlántico sur: Tierra del Fuego, Valle de l'Oliveia, forêts inférieures, 13/17 Feb 1896, *N. Alboff 427* (label written in Angel Cabrera's hand; lectotype designated here: LP 75322!, LP002150 digital image!; isoelectotype: LP 6068!, LP002149 digital image!). Syntypes: Tierra del Fuego, Valle de l'Oliveia, forêts inférieures, 13/17 Feb 1896, *N. Alboff 428* (LP 6069!, LP002148 digital image!), 429 (LP 6074!, LP002144 digital image!), 430 (LP 6070!, LP002147 digital image!), 431 (LP 6072!, LP002142 digital image!), 432 (LP 6071!, LP002141 digital image!), 433 (LP 6073!, LP002145 digital image!).

Leucheria patagonica Speg., Revista Fac. Agron. Univ. Nac. La Plata 3: 538. 1897. "Hab. in pratis collinis prope Lago Argentino, anno 1884 (T. F.) [Tonini del Furia; Katinas et al. 2001]." *Lasiorrhiza patagonica* (Speg.) Macloskie, Rep. Princeton Univ. Exp. Patagonia, Botany 8(2): 890. 1906. Type: ARGENTINA, Prov. Santa Cruz: Hab. S. Cruz, without leg. (holotype: ex LPS 1888 in LP!, LP000099 digital image!).

Lasiorrhiza leontopodioides Kuntze, Revis. Gen. Pl. 3 (3): 161. 1898. "Patagonia (149 Moreno & Tonini)." *Leucheria leontopodioides* (Kuntze) K. Schum., Just's Bot. Jahresber. 26(1): 378. 1900, *syn. nov.* Type: ARGENTINA, Prov. Chubut: Territorio del Chubut, without leg. 149 (holotype: LP 002162!; isotype: NY00180491 digital image!).

Leucheria lanigera O. Hoffm. ex Dusén, Wiss. Ergebn. Schwed. Exped. Magellansländen 3: 115. 1900. "Hab. Patagonia australis: cerro Paliki [Pali Aike], c. 450 m supra mare (leg. O. Nordenskjöld; det. et descriptis. O. Hoffmann)." *Lasiorrhiza lanigera* (O. Hoffm. ex Dusén) Macloskie, Rep. Princeton Univ. Exp. Patagonia, Botany 8(2): 890. 1906. Type: CHILE, Prov. Magallanes: Without data, annotated *O. Nordenskjöld A75* (holotype: B [destroyed] photograph F0BN016050!). CHILE, Prov. Magallanes: Comuna San Gregorio, Parque Nacional Pali Aike, sector Murtillar, 52°05'S, 69°46'W, 150 m, escaso en el murtillar de

Empetrum rubrum, 10 Jan 2001, E. Domínguez 48 (epitype designated here: CONC 157687!).

Leuceria hoffmannii Dusén, Wiss. Ergebn. Schwed. Exped. Magellanslän-
dern 3: 116. 1900. "Hab. Patagonia australis: cerro Paliki [Pali Aike],
400–500 m supra mare (Leg. O. Nordenskjöld)." *Lasiorrhiza hoff-*
mannii (Dusén) Macloskie, Rep. Princeton Univ. Exp. Patagonia,
Botany 8(2): 889. 1906. Type: CHILE, Prov. Magallanes: Patag. austr.,
Cerro Paliki, 300–500 m, Dec 1896, O. Nordenskjöld A75 (holotype:
B [destroyed] photograph F0BN016048!). ARGENTINA, Prov. Santa
Cruz: Patagonia australis, Lago Argentino, in montanis inter fruticeta,
c. 800 m s. m., 30 Jan 1905, P. Dusén 5748 (epitype designated here: S,
photograph S-R-3216!).

Perennial herbs, scapose, 4–30 cm high. Leaves linear-
oblanceolate, oblanceolate, obovate, spatulate, lobate to pinna-
tise, sometimes entire, lobes entire, oblong, ovate, commonly
imbricate, midvein cylindrical or planate, very lanose in both
faces, sometimes subglabrous abaxially; lower leaves rosulate,
1.5–1.5 cm long, 0.3–2 cm wide, disposed in one or more than
one bundle by sprouting rhizome, petiole winged. Capitula
solitary, rarely 2 capitula by scape bifurcation, often thick and
widened below the capitulum, usually 1–5 capitula per plant.
Involucres 8–13 mm high, 2- or 3-seriate, phyllaries glandular-
pubescent and lanose, the outer phyllaries slightly shorter, pla-
nate, intermediate phyllaries concave, margins scarious, inner
phyllaries somewhat concave; paleaceous phyllaries absent.
Florets 25–80, corolla white, pink, occasionally red and lilac.
Cypselae papillose, abundant glandular biseriate trichomes, few
multiseriate glandular trichomes, few twin trichomes ~50 µm,
occasionally longer twin trichomes, ~150 µm. Pappus 5–6 mm
long, isomorphic, bristles thin and cylindrical, long plumose,
cilia 700–800 µm long, white.

DISTRIBUTION AND ECOLOGY. Southern Chile,
in Aysén and Magallanes y la Antártica Chilena Regions, reach-
ing the Beagle Channel and Navarino Island, and southern
Argentina, in Chubut, Santa Cruz, and Tierra del Fuego Prov-
inces, reaching the Falkland Islands (Islas Malvinas); it grows
in dry soils such as those on mountain slopes, in grasslands, in
dry river beds, among shrubs, and along sandy coasts and also
in more humid soils such as those in mallines, near peat bogs,
in open areas of *Nothofagus* forests, and in the understory of
shrubs (e.g., *Bolax* Comm. ex Juss.), up to 1,600 masl.

PHENOLOGY. Collected in flower from November to
March.

VERNACULAR NAMES. *Leuceria peluda* (Iribarren
and Ferreyra 2011), vanilla daisy (Crisci 1976).

NOTES.

1. The type specimens of *Leuceria lanigera* and *L. hoff-*
mannii collected by Nordenskjöld on Paliki hill were
not found at S, and the only available material is a pho-
tograph of a specimen at B (*Nordenskjöld* A75, pho-
tograph F0BN016050!), which was probably destroyed
during World War II. For this reason, we selected epi-
types for these names.

2. Until now, *Leucheria suaveolens* was considered
endemic to the Falkland Islands (Islas Malvinas; Crisci
1976; Broughton and McAdam 2005), even when one
specimen of this species (*Hochstetter* 2261, LP) was
actually found in the continental area of the Strait of
Magellan (Cabrera 1971; Crisci 1976; Moore 1983).
Philippi (1872) already suggested that *Chabraea*
(*Leucheria*) *integrifolia* Phil. (an illegitimate name,
homonymous with *Chabraea integrifolia* Phil., 1856)
from the Strait of Magellan could be a variety of *L. sua-*
veolens. The specimens traditionally identified as *L. sua-*
veolens have partite leaves and a thick scape widening
below the capitulum, with linear bracts. The analysis of
some specimens (e.g., P03733294 from Puerto Natales,
Chile, and P03733288, P03733289, P03733290 from
Punta Arenas, Chile) shows not only that *L. suaveolens*
grows on the continent but also that a whole suite of
characters such as its scapose habit, lanose nature, soli-
tary capitula, and shortly papillose cypselae connects
this species to *Leucheria hahnii*, a species also described
as morphologically variable (Moore 1975; Crisci 1976).
Crisci (1976) mentioned the leaf variability of *L. hah-*
nii, and Moore (1975) described alpine densely vil-
lous populations with reduced stature and relatively
large capitula, differing significantly from plants on the
lower mountain slopes. Moore (1975) noted, however,
that some lower populations of northeastern Tierra del
Fuego closely resemble the alpine forms because of the
exposure to available moisture. Therefore, on the basis
of all this evidence, we place *L. hahnii* in the synonymy
of *L. suaveolens*.
3. Likewise, the type of *Lasiorrhiza leontopodioides*,
which has a cespitose habit and short scapes sur-
rounded by tightly arranged leaves, represents part of
this morphological variation. For this reason, *Leuche-*
ria leontopodioides is here also added as synonym of
L. suaveolens.
4. *Leucheria suaveolens* is distinctive because of its white
lanose stems and leaves, solitary capitula, and papillose
fruits covered by very short trichomes. Some specimens
from Chubut, Argentina, have slightly longer fruit tri-
chomes, thus approaching *L. diemii*, but the leaves are
commonly partite (vs. entire in *L. diemii*).
5. The height of the plants is very variable, from a few
centimeters with small, tight leaves, forming cushions,
to slender plants with long scapes and long and laxly
disposed lower leaves. The margin of the leaves ranges
from pinnatisect to entire, sometimes varying in the same
plant, and the scape can be widened below the capitulum
or not.
6. Some specimens of populations from Santa Cruz Prov-
ince, Argentina (e.g., R. Spegazzini 116, BAB; *Sleumer*
1411, LP), have red corollas, whereas *L. suaveolens* com-
monly has pink or white corollas, but the other characters

match those typical of *L. suaveolens* (e.g., papillose fruits with short trichomes). Because the labels of some specimens (e.g., *Sleumer 1163*, LP) describe changes in the corolla color from pale to dark, it is possible that this is a character that varies according to the capitulum development and the floret color depends on the time when the specimens were collected.

7. The florets of *L. suaveolens* are fragrant (Reiche 1905), with a perfume that resembles that of the vanilla (d'Urville 1825).
8. *Leucheria suaveolens* resembles *L. candidissima* and *L. diemii* (see Notes for these species).

ADDITIONAL SPECIMENS EXAMINED. ARGENTINA.

PROVINCE CHUBUT: dept. Escalante, Pampa del Castillo, 14 Dec 1929, *E. Ferruglio 97* (LP), id., 56 km W de Comodoro Rivadavia, km 406, 15 Dec 1987, *R. León 3922* (BAA); estancia Begonia, 30 km NW de Comodoro Rivadavia, 8 Nov 1946, *A. Soriano 2048* (LP); al W de Rada Tilly, golfo San Jorge, without date, *C. Spegazzini s.n.* (LP); dept. Gaiman, valle Pozos y Villegas, Jan 1902, *C. Onelli s.n.* (BAB 5899); dept. Paso de Indios, ruta 24, a 50 km S Paso de Indios, desvío a 23 km SW ruta, estancia Laguna Blanca, 30 Nov 1976, *S. Arroyo et al. 137* (BAB); ruta 23, a 76 km N Buen Pasto, 2 Dec 1976, *S. Arroyo et al. 236* (BAB); desvío a 35 km SW, ruta 24, sierra de La Buitrera, estancia La Altura, Corral de Piedra, 1 Dec 1976, *S. Arroyo et al. 191* (BAB); dept. Río Senguerr, prope Lago Blanco, 1901, *C. Spegazzini s.n.* (LP 75058, 75323), Dec 1900, *C. Spegazzini s.n.* (LP); valle del Lago Blanco, 30 Dec 1902, *J. Koslowsky s.n.* (BAB 12312); río Aysen, Dec 1900, *Burmeister s.n.* (BAB 2103); dept. Tehuelches, Río Pico, without date, *S. Roth s.n.* (LP 75332). Without locality: 1889, *N. Illin s.n.* (LP); 1889, *C. Moyano s.n.* (LP). PROVINCE SANTA CRUZ: dept. Güer Aike: estancia Stag River, 26 Dec 1957, *R. Tweedie 200* (LP), 16 Jan 1958, *R. Tweedie 258* (LP), id., 16 km n del casco, río de los Venados, 14 Feb 1978, *TBPA 3209* (BAB), id., meseta Latorre, cerro Punta Gruesa, 25 Jan 1978, *TBPA 2944, 2977, 2979, 3084* (BAB), 24 Jan 1978, *TBPA 3060* (BAB), 2 Feb 1978, *TBPA 3518* (BAB), 15 Feb 1978, *TBPA 3239* (BAB), id., sección San Antonio, 19 Jan 1978, *TBPA 2746, 2748* (BAB); estancia Las Vizcachas, Ensenada de Riques, al pie del cerro Sin Nombre, 31 Jan 1977, *TBPA 2693* (BAB); estancia La Verdadera Argentina, cerro de la Virgen, ladera W, 20 Jan 1977, *TBPA 2321* (BAB), id., cerro de la Virgen, al N casco de la estancia, 20 Jan 1977, *TBPA 2303* (BAB); camino viejo de estancia La Dorotea a La Primavera, 15 Jan 1976, *TBPA 430 1/2, 433 1/2* (BAB); estancia Primavera, 6 Dec 1976, *TBPA 1184* (BAB); Río Gallegos, 20 Dec 1898, without leg. (LP); estancia Rospentek, meseta Latorre, 25 Jan 1978, *TBPA 2908* (BAB); zona San José, campamento Marina, arroyos Santa Flavia y Santa Eloisa, yacimientos Río Turbio, Dec 1949–Jan 1950, *M. Hünicken 22, 25* (LP); lomas del río Turbio, Jan 1903, *T. Arnerberg 84* (BAB); Río Turbio, 16 Jan 1967, *O. Boelcke et al. 12461* (BAB), id., Pampa del Muerto, 20 Jan 1949, *A. Borrello s.n.* (LP 74912); cumbre de la cordillera Chica, cerro Punta Alta, 5 Feb 1978, *TBPA 3753*

(BAB); cerro Cazador, 27 Jan 1976, *M. Gentili 417* (LP); al S 28 de Noviembre, 15 Jan 1976, *E. Méndez 1064* (BAB); dept. Lago Argentino, detrás de la estación Buenos Aires, 5 Jan 1964, *O. Zöllner 529* (LP); estancia Pérez, río de las Vueltas, 28 Dec 1950, *H. Sleumer 1374* (LP); río Calafate, Dec 1902, *R. Hauthal s.n.* (LP); cerro El Calafate, lago Argentino, 20 Dec 1950, *H. Sleumer 1163* (LP); río Santa Cruz, Dec 1902, *R. Hauthal s.n.* (LP); curso superior río Santa Cruz, lago Argentino, Jan 1902, *R. Hauthal s.n.* (LP); cerro Argentino, cerca del lago Argentino, 8 Jan 1964, *O. Zöllner 5801* (CONC); alrededores del cerro Fitz Roy, Feb 1932, *P. Agostini B-36* (LP); valle del río Fitz Roy, faldas E, 29 Dec 1950, *H. Sleumer 1411* (LP); dept. Lago Buenos Aires, meseta del lago Buenos Aires, en puesto Leboun, 23 Dec 1968, *A. Ruiz Leal 26429* (LP); laguna El Sello, 26 Dec 1968, *A. Ruiz Leal 26458* (LP); ruta provincial 45, lago de los Gendarmes, 11 Jan 1913, *F. Ratto et al. 228* (BAA); dept. Río Chico, estancia La Oriental, por Paseo de Águila, lago Belgrano, 21 Feb 1936, *M. Birabén & M. Birabén 104* (LP); head of Río Chico, Feb 1897, *J. Hatcher 167* (LP); estancia El Rincón, lago Belgrano, 20 Dec 1940, *R. Spegazzini 116* (BAB), 21 Dec 1940, *R. Spegazzini 141* (BAB). Without locality: without date, *C. Spegazzini s.n.* (LP). PROVINCE TIERRA DEL FUEGO, ANTÁRTIDA E ISLAS DEL ATLÁNTICO SUR: dept. Río Grande, estancia Cullen, ~4 km S of settlement, 21 Nov 1971, *D. Moore 2586* (LP), id., 51 km N de San Sebastián, 21 Nov 1971, *O. Boelcke et al. 15152* (BAA, BAB, LP), id., lomas cerca de la costa, 25 Jan 1960, *M. Correa & R. Pérez Moreau 2020* (BAB); sierra Carmen Silva, N side of río Chico valley, ~3 km from first trees, 16 Dec 1971, *D. Moore & N. Goodall 200* (BAB, LP); altos de Boquerón, 39 km from Porvenir, by lago Baquedano, 15 Dec 1971, *D. Moore & N. Goodall 188* (BAB, LP); cabo Domingo, 17 km N de Río Grande, ladera W, 18 Nov 1971, *O. Boelcke et al. 15035* (BAB); lago Fagnano, N side, aserradero Vidal, cerro Atukoyak, S side, 17 Jan 1968, *D. Moore 1554* (LP); dept. Ushuaia, camino a Lapataia, 13 Dec 1932, *Castellanos s.n.* (LP); Varela point, Harborton side, 26 Nov 1965, *N. Goodall 170* (LP); estancia Harborton, campo afuera, cerro Flat Top, 9 Jan 1968, *D. Moore 1385* (LP), id., cerro No Top, S summit, 31 Jan 1968, *D. Moore 1739, 1743* (LP), 23 Dec 1971, *D. Moore 2794* (BAB); Paso Garibaldi, on ruta 3, 23 Jan 1967, *N. Goodall 603* (LP); Cambaceres river, lower slopes of W side of No Top mountain, 17 Mar 1967, *N. Goodall 769* (LP); hauteurs au dessus d'Ushuaia, 3 Feb 1896, *N. Alboff 415* (LP), 9 Feb 1896, *N. Alboff s.n.* (LP 6005); camino a Laguna Azul, 11 Jan 1960, *M. Correa & R. Pérez Moreau 1916, 1922* (BAB, LP); 6–8 km de Ushuaia, margen derecho del río Olivaia, 22 Dec 1949, *A. Ruiz Leal & Carretero 12817* (LP); alrededores de Ushuaia, 1906/1907, *A. Snaider s.n.* (BAB 21192), 23 Jan 1955, *E. Grondona 4338* (BAB, CONC); turberas próximas a Ushuaia, 23 Dec 1949, *A. Ruiz Leal & Carretero 12788* (LP); montes Martial, glaciar San Martín, 17 Jan 1960, *M. Correa & R. Pérez Moreau 2047* (BAB, LP); Ushuaia, Jan 1955, *J. Hunziker 6724* (BAB, LP); valle de Tierra Mayor, 24 Feb 1953, *A. Ruiz Leal & F. Roig 15059* (LP); sierra Sorondo, behind Punta Segunda, 20 Feb 1968,

D. Moore 1971 (BAB, LP); sierra Almanza, cerro Almanza, W side Lashifashaj, 11 Jan 1968, *D. Moore* 1439 (BAB); Lashifashaj valley, NE side, mountain SE of Mt. Cornu, 3 Feb 1968, *D. Moore* 1771 (LP); Montes Martiales, cerro Redondo, 11 Jan 1960, *E. Grondona* 7476 (BAA); 20 km monte Oliva, 12 Jan 1955, *E. Grondona* 4214 1/2 (BAA); Falkland Islands (Islas Malvinas), East Falkland, Mt. Tumbledown, W of Port Stanley, 8 Jan 1964, *D. Moore* 519 (LP).

CHILE. REGION AYSÉN: Prov. Aysén: cerro Pirámide, lago General Carrera, Feb 1974, O. Zöllner 7377 (CONC). Prov. Coyhaique: río Ñiriguas, estancia Baño Nuevo, 17 Jan 1939, I. von Rentzell 6076 (LP). **REGION MAGALLANES Y LA ANTÁRTICA CHILENA:** Prov. Antártica Chilena: Isla Navarino, Jan 1966, Tsujii 6, 21, 400 (CONC 34227). Prov. Magallanes: Cabeza del Mar, 24 Nov 1970, *E. Pisano* V. 2791 (LP); estancia María Cristina, 80 km NE de Punta Arenas, on road to Río Gallegos, 5 Dec 1974, N. Goodall 4021 (BAB); Morro Chico, 10 Jan 1952, A. Pfister & M. Ricardi s.n. (CONC 11977, 12107); Magallanes, without date, *Magens* s.n. (CONC 21216); seno Otway, Nov 1951, *Cekalovic* s.n. (CONC 25749); Último Sendero, Dec 1950, *Magens* 908 (CONC); Los Tres Morros, Feb 1974, *Dollenz* 166 (CONC). Prov. Tierra del Fuego: 9 km NNE of Porvenir, 14 Dec 1971, *D. Moore* & N. Goodall 120 (BAB); Altos de Boquerón, 2 km SE of Río del Oro, 15 Dec 1971, *D. Moore* & N. Goodall 182 (BAB); sector Vicuña, lote 12, Jan 1995, *E. Pisano* V. et al. 7485 (CONC). Prov. Última Esperanza: sierra de los Baguales, Feb 1900, R. Hauthal 49, 55, 92 (LP); sierra Baguales, estancia La Cumbre, cerro Sin Nombre, 19 Dec 1975, *TBPA* 761 (BAB), Jan 1987, A. Landero 734 (CONC); estancia La Cumbre, Dec 1986, A. Landero 688 (CONC), Jan 1987, A. Landero 769 (CONC), Dec 1987, *Petersen* 19 (CONC); Baguales, Las Cumbres, Feb 1962, M. Ricardi & O. Matthei 394, 415 (CONC); Baguales, cerro Santa Lucía, Dec 1984, M. Arroyo 84-1111, 84-1148 (CONC), Jan 1985, M. Arroyo 85-0034, 85-0089 (CONC); estancia Cerro Castillo, 13 Dec 1975, *TBPA* 485 (BAB), Jan 1952, *Paschke* s.n. (CONC 12238); sierra Cazador, cerro Castillo, Jan 1962, M. Ricardi & O. Matthei 505 (CONC); estancia Cerro Castillo, pie del cerro Solitario, 16 Jan 1977, *TBPA* 1656 (BAB), 18 Jan 1977, *TBPA* 1758 (BAB); cerro Solitario, 16 Jan 1977, *TBPA* 2324 (BAB); sierra Baguales, campo Estancia Vieja, Dec 1986, A. Landero 710 (CONC); Sierra Baguales, paso Baguales IV, Dec 1986, A. Landero 640 (CONC); cerro Paine, 16 Jan 1931, A. Donat 411 (LP), Jan 1954, J. Diem 2439 (BAB); Puerto Bueno, canal Smyth, 1882, A. Hochstetter 2261a (LP); monte Señoret, Dec 1950, *Magens* 77 (CONC); cerro Donoso, río de Las Chinas, Feb 1987, M. Arroyo et al. 87-0207, 87-0334 (CONC); sierra del Toro, Feb 1992, M. Kalin et al. 63, 110, 132, 133, 179 (CONC); Parque Torres del Paine, cerro Diente, Dec 1985, M. Arroyo & F. Squeo 85-0823, 85-0035, 85-0897 (CONC), Jan 1986, M. Arroyo & F. Squeo 86-0010 (CONC); Parque Torres del Paine, cerro Agudo, Jan 1987, M. Arroyo & F. Squeo 87-0010, 87-0054 (CONC); Parque Torres del Paine, cerro Daudet, Jan 1987, M. Arroyo & F. Squeo 87-0121 (CONC);

Parque Nacional Torres del Paine, camino boca del lago Grey, Nov 2001, *E. Domínguez* 500 (CONC); Parque Nacional Torres del Paine, Esmeralda, Nov 2001, *E. Domínguez* 514 (CONC); cordillera del Paine, Feb 1992, C. von Bohlen & L. Cavieres 357 (CONC); estancia Guido, Jan 1952, A. Pfister & M. Ricardi s.n. (CONC 12158). Without locality: without date, R. Hauthal s.n. (LP).

28. *Leucheria tomentosa* (Less.) Crisci, Darwiniana 20: 114. 1976. *Lasiorrhiza tomentosa* Less., Linnaea 5: 12. 1830. "Pöppig legit in arenosis maritimis ad Concon." *Homoeanthus tomentosus* Poepp. ex Less., Linnaea 5: 12. 1830, *nom. nud. pro syn. Chabraea tomentosa* (Less.) DC., Prodr. 7: 60. 1838. Type: CHILE, Prov. Valparaíso: In arenosis maritimis ad Concon, April, without year, *E. F. Poeppig* Coll. Pl. Chil. I 217, Diar. 162 (lectotype designated by Crisci [1976:115]: P!, P00732710 digital image!; isolectotypes: G-DC00492961 digital image!, NY!, NY00180496 digital image!, P!, P00732711 digital image!). Figures 11B,G, 39.

Trixis senecioides Hook., Exot. Fl. 2(10): 101, tab. 101. 1825, non *Leucheria senecioides* Hook. & Arn., 1830. CHILE, collector unknown, plants cultivated in England botanical gardens: "A native of Chili, whence seeds were communicated to our garden [probably the Glasgow Botanic Gardens] by Mr Cruikshanks." Type: The iconography in Exot. Fl. 2(10): 101, tab. 101. 1825 (lectotype designated by Crisci 1976:114). CHILE, Prov. Biobío, Pungal del Laja, 12 Oct 1959, M. Ricardi & C. Marticorena 4990/1374 (*epitype designated here*: BAB!, CONC!, LP!).

Chabraea abbreviata Bertero, Merc. Chil.: 601. 1829, *nom. nud. pro syn.*

Chabraea elongata Bertero, Merc. Chil.: 601. 1829, *nom. nud. pro syn.*

Chabraea tenuior Bertero, Merc. Chil.: 601. 1829, *nom. nud. pro syn.*

Leucheria tenuis Less., Syn. Gen. Compos.: 401. 1832, *nom. nov. pro Chabraea tenuior* Bertero, "Bertero in Chile. (v. sp. 1. in hrb. Kth.)." *Chabraea berteroniana* Steud., Nomencl. Bot. (ed. 2), 1: 338. 1840, *nom. superfl.* Steudel (1840), probably unaware of Lessing's (1832) publication, established this name for *Chabraea tenuior* Bertero. *Chabraea tenuior* Bertero ex Colla, Mem. Reale Accad. Sci. Torino 38: 23. 1835. CHILE, Prov. Cachapoal: "Chili monte la Leona." Type: The same as *Leucheria tenuis*. It is probably a superfluous name even though Colla used the spelling "tenuior" instead of "tenuis." *Lasiorrhiza tenuis* (Less.) Kuntze, Revis. Gen. Pl. 1: 350. 1891. Type: CHILE, Provs. Cachapoal-Valparaíso: In pascuis steril. Mont. la Leona, Oct 1828, C. Bertero 159 (lectotype designated by Apodaca et al. [2021]: P!, P00732702 digital image!; isolectotypes: BAB00000103, BR0000005329878, G-DC00492934 digital images!, GH!, GH00009690, GH00009691 digital images!, M!, M0030667 digital image!, NY!, NY00180618 digital image!, P!, P00732703, P00732704, W1889-0291336 digital images!). Syntypes: Chili, Quillota, in lapidosis steril. coll. editorum loco dicto la Campana chica, Oct 1829, C. Bertero 906 (G-DC00492914, G-DC00492915, G-DC00492959 digital images!, P!, P00732707 digital image!). Chili, C. Bertero s.n. (P00732708, P00732709 digital images!). Chili, in pascuis saxosis collium loco dicto S. Joaquin, secus flum. Cahagual, Oct 1829, C. Bertero s.n. (P00732701, P00732706 digital images!).

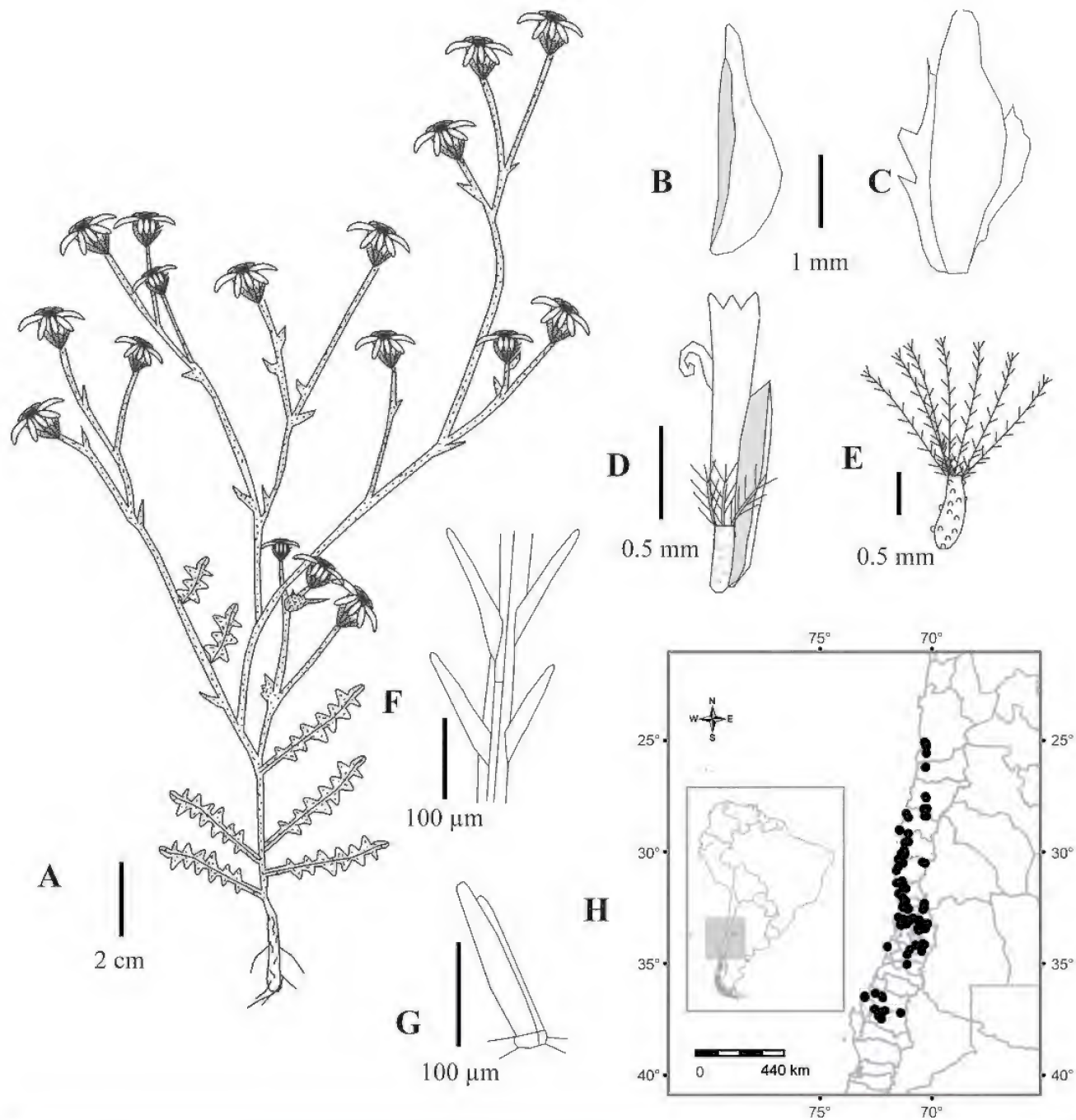


FIGURE 39. *Leucheria tomentosa* (Less.) Crisci. A. Habit. B. Outer phyllary of the involucre (lateral view). C. Inner phyllary of the involucre. D. Marginal floret and fruit with short pappus and one enfolding phyllary. E. Fruit and pappus of central floret. F. Detail of pappus bristle. G. Fruit twin trichome. H. Distribution map. A, without leg. (LP); B–E, *Junge 6699* (LP); F, G, *Zöllner 3682* (LP).

- Leuceria cinerea* D. Don, Trans. Linn. Soc. London 16: 215. 1830. CHILE, Prov. Concepción: “In Chili, aridis arenosis ad urbem Conceptionis. Ruiz et Pavon.” *Lasiorrhiza [cinera] cinerea* (D. Don) Less., Syn. Gen. Compos.: 404. 1832. *Chabraea cinerea* (D. Don) DC., Prodr. 7: 60. 1838. Type: Not found, not in MA (M. R. Noya, Real Jardín Botánico de Madrid, personal communication), P (<https://science.mnhn.fr/institution/mnhn/collection/p/item/search/>), or BM (Ranee Prakash, The Natural History Museum, London, personal communication). “Chabraea cinerea,” Pérou, 30 Nov 1777, *J. Dombey* 30 (neotype designated here: G-DC, photograph F 8281!). This is the specimen that de Candolle (1838) used for the description of *Chabraea cinerea* (D. Don) DC. and matches the original description of Don (1830).
- Leuceria pulchella* D. Don, Trans. Linn. Soc. Bot. 16: 216. 1830, non *Chabraea pulchella* Phil., 1872 (= *L. bridgesii* Hook. & Arn.). “In Chili ad Coquimbo, Caldcleugh.” Type: CHILE, Prov. Santiago: Santiago de Chile, A. Caldcleugh s.n. (lectotype designated by Apodaca et al. [2021]: G-DC, photograph F 28864!). Región Metropolitana de Santiago, prov. Santiago, Polpaico, Sep 1947, *E. Barros* 7436 (epitype designated here: CONCI, LP!).
- Leucheria glandulosa* D. Don, Trans. Linn. Soc. London 16: 217. 1830, non *Leuceria glandulosa* Phil., 1872, *nom. illeg. hom.* (sub *Leucheria viscida* (Bertero ex Colla) Crisci). “Cum praecedente [with *L. pulchella*]. Caldcleugh.” *Chabraea glandulosa* (D. Don) DC., Prodr. 7: 59. 1838. *Lasiorrhiza glandulosa* (D. Don) Kuntze, Revis. Gen. Pl. 1: 350. 1891. Type: CHILE, Prov. Santiago: Santiago de Chile, A. Caldcleugh s.n. (holotype: G-DC [destroyed] photograph F 28863!). Chile, Prov. Santiago, cerro Montenegro, ladera sureste, 1,000 m s. m., entre rocas, abundante, 10 Oct 1970, O. Zöllner 4329 (epitype designated here: LP!).
- Leucheria senecioides* Hook. & Arn., Bot. Beechey Voy. 1: 28. 1830. CHILE, Prov. Concepción, visited in October 1825, collectors Mr. Lay and Mr. Collie: “Hab. Conception.” *Lasiorrhiza [senecioides] senecioides* (Hook. & Arn.) Kuntze, Revis. Gen. Pl. 1: 350. 1891. Type: Concepción, Beechey s.n. (holotype: E00249417 digital image!).
- Leucheria cumingii* Hook. & Arn., Companion Bot. Mag. 1: 36. 1835. “Coquimbo, Cuming (n. 906).” Type: CHILE, Prov. Elqui: Coquimbo, *H. Cuming* 906 (holotype: BM000947923 digital image!; isotypes E00413010, E00249338, K000504390, K000504391 digital images!, P!, P00732640, W0017676 digital images!).
- Chabraea abbreviata* Bertero ex Colla, Mem. Reale Accad. Sci. Torino 38: 22. 1835. “Chili monte la Leona.” *Leuceria abbreviata* (Bertero ex Colla) Steud., Nomencl. Bot. (ed. 2), 2: 36. 1841. Type: CHILE, Prov. Cachapoal: Chili, Rancagua, in pascuis fruticetis Mont. La Leona, Oct 1828, *C. Bertero* 157 (lectotype designated by Crisci [1976:89]: P!, P00732696 digital image!; isolectotypes: BM000947926 digital image!, GH!, GH00004651, HAL0112838 digital images!, NY!, NY00163261, NY00163271 digital images!, P!, P00732695 digital images!, US!, US00119991 digital image!). Syntypes: Chile, Prov. Valparaíso: In arena mobili ad maris littus Valparaíso, Sep 1830, *C. Bertero* 1801 (BM000947925 digital image!; [*C. Bertero* s.n.] GH!, GH00004652 digital image!, P00732699 digital image!). Chili, in pascuis saxosis collium Quillota, Sep–Oct 1829, *C. Bertero* 904 (G-DC00492923, G-DC00492978 digital images!, GH!, GH00260934, P00732697, P00732698 digital images!), [*C. Bertero* 905] (G-DC00492950 digital image!).
- Chabraea elongata* Bertero ex Colla, Mem. Reale Accad. Sci. Torino 38: 23. 1835. “Chili” (plants collected by Carlos Bertero in the provinces or cities of Valparaíso, Santiago, Rancagua, and San Fernando, Chile, and published in several articles in *El Mercurio Chileno* from 1829 to 1832; see Notes). Type: CHILE, Prov. Cachapoal: Chili, Rancagua [*sic*], in montium apricis rupestribus prope la punta de Cortes Rio claro; monte La Leona, Sep–Oct 1828, *C. Bertero* 158 (lectotype designated by Apodaca et al. [2021]: P00732691 digital image!; isolectotypes: CONC 45146!; GH00004653, HAL0112837, NY163263, NY00163264, P00732692, W1889-0291341 digital images!). Syntypes: Chili, Rancagua, in pascuis et sufruticetis montis La Leona, Oct 1829, *C. Bertero* 158 (P00732693, P00732694 digital images!). Chili, Rancagua, in pascuis saxosis, Oct 1828, *C. Bertero* 158 (GH00004654 digital image!). Chili, Rancagua, Oct 1828, *C. Bertero* 158 (P00732657 digital image!).
- Leucheria senecioides* Hook. & Arn. var. *purpurascens* DC., Prodr. 7: 57. 1838. “In Chili pascuis sterilibus ad Rancagua, Valparaíso, montem La Leona.” Type: The same as *Chabraea abbreviata*. De Candolle (1838), probably unaware of Colla’s (1835) publication, established this variety based on *Chabraea abbreviata* Bertero.
- Lasiorrhiza pulchella* (D. Don) Steud., Nomencl. Bot. (ed. 2), 2: 12. 1841, non *Lasiorrhiza pulchella* (Phil.) Kuntze, 1891 (= *L. bridgesii* Hook. & Arn.), *nom. illeg. hom.*
- Leucheria oligocephala* J. Rémy, Fl. Chil. 3: 383. 1847, non *Chabraea oligocephala* Phil., 1872 (= *Leucheria landbeckii* (Phil.) Reiche). “Se cria en las provincias centrales de Chile.” *Lasiorrhiza oligocephala* (J. Rémy) Kuntze, Revis. Gen. Pl. 1: 350. 1891. Type: CHILE: Chili, *C. Gay* s.n. (lectotype designated by Apodaca et al. [2021]: P!, P00732675 digital image!; isolectotypes: K000504368, P00732676 digital images!). Syntype: Chili, 1829, *C. Gay* 619 (P00732674 digital image!).
- Leucheria eriochlaena* J. Rémy, Fl. Chil. 3: 384. 1847. CHILE, Provs. Cardenal Caro-Colchagua-Santiago-Valparaíso: “Se cria en los arenales marítimos de la provincia de Santiago y Colchagua, Topocalma, San Antonio, etc.” *Lasiorrhiza eriochlaena* (J. Rémy) Kuntze, Revis. Gen. Pl. 1: 350. 1891. Type: CHILE: Chili, in maritimis, *C. Gay* 345 (lectotype designated by Apodaca et al. [2021]: P!, P00732712 digital image!; isolectotype: P00732642 digital image!).
- Leucheria peduncularis* J. Rémy, Fl. Chil. 3: 385. 1847. “Se cria en los lugares espuestos al sol de las provincias centrales.” *Lasiorrhiza peduncularis* (J. Rémy) Kuntze, Revis. Gen. Pl. 1: 350. 1891. Type: CHILE: Provinces centrales du Chili, *C. Gay* s.n. (holotype: P00732677 digital image!).
- Leucheria cerberoana* J. Rémy, Fl. Chil. 3: 386. 1847. “Esta especie se cria en los arenales marítimos de la provincia de Coquimbo.” *Lasiorrhiza cerberoana* (J. Rémy) Kuntze, Revis. Gen. Pl. 1: 350. 1891. Type: CHILE, Prov. Elqui: In arenosis maritimis prope Coquimbo, *C. Gay* 264 (lectotype designated by Apodaca et al. [2021]: P!, P00732633 digital image!). Syntypes: Chili, Prov. Coquimbo, dans les sables du bord de la mer, très commun, *C. Gay* 175 (P00732634, P00732635 digital images!). Chili, Prov. Coquimbo, *C. Gay* s.n. (GH!, GH00009683, K000504363 digital images!).
- Leucheria menana* J. Rémy, Fl. Chil. 3: 387. 1847. “Esta especie se halla entre los peñascos marítimos del puerto de Coquimbo, etc.” *Lasiorrhiza menana* (J. Rémy) Kuntze, Revis. Gen. Pl. 1: 350. 1891. Type: CHILE, Prov. Elqui: Chili, Prov. Coquimbo, Coquimbo, dans les endroits ombragés, auprès des les rochers au bord de la mer, 1838, *C. Gay* 177 (lectotype designated

by Apodaca et al. [2021]: Pl, P00732670 digital image!). Syntypes: Chili, Prov. Coquimbo, parmi les rochers dans les endroits ombragés, 1838, C. Gay 176 (P00732669 digital image!). Chili, Prov. de Coquimbo, dans les sables et parmi les rochers, 1838, C. Gay 174 (P00732668 digital image!). Chili, Prov. Coquimbo, C. Gay s.n. (B [destroyed] photograph F 16053!; GH!, GH00009685, K000504380, K000504378 digital images!). Chili, C. Gay 916 (P00732667, P00732671 digital images!).

Chabrea glabriuscula Phil., Linnaea 28: 715. 1856. "In Andibus prov. Santiago ad argentifodinam Arañas legitur." *Lasiorbiza glabriuscula* (Phil.) Kuntze, Revis. Gen. Pl. 1: 350. 1891. *Leuceria glabriuscula* (Phil.) Reiche, Fl. Chile 4: 414. 1905. Type: CHILE, Prov. Santiago: Cordillera de las Arañas, Dec 1854, P. Germain s.n. (holotype: SGO 60518!, photograph LP!; isotype: LP 002138!).

Chabrea modesta Phil., Fl. Atacam.: 28. 1860. "In valle Cachinal de la Costa 26°4' lat. m. etc. 1700 p. s. m. crescit." *Lasiorbiza modesta* (Phil.) Kuntze, Revis. Gen. Pl. 1: 350. 1891. *Leuceria modesta* (Phil.) Reiche, Fl. Chile 4: 415. 1905. Type: CHILE, Prov. Antofagasta: Cachinal de la Costa, R. Philippi s.n. (holotype: SGO 60515!; isotype: LP 000860!).

Leucheria multiflora Phil., Anales Univ. Chile 41: 743. 1872. "Se cria en la cuesta de los Molles." *Lasiorbiza multiflora* (Phil.) Kuntze, Revis. Gen. Pl. 1: 350. 1891. Type: CHILE, Prov. San Felipe de Aconcagua: Los Molles, R. Philippi 1126 (lectotype designated by Crisci [1976:73]: SGO 60862!, photograph LP!; isolectotype: LP 75261!, LP002161 digital image!). Syntypes: Prov. San Felipe de Aconcagua, R. Philippi s.n. (B [destroyed] photograph F16055!, NY!, NY00180616, S-R-3214 digital images!).

Leuceria glabrata Phil., Anales Univ. Chile 87: 103. 1894. "Prope Bandurrias invenit orn. Guilielmus Geisse." Type: CHILE, Prov. Huasco: Bandurrias, 1885, W. Geise 97 (holotype: SGO 60506!; isotype: [W. Geise s.n.] LP 75341!, LP002137 digital image!).

Leuceria debilis Phil., Anales Univ. Chile 87: 107. 1894. "Habitat in deserto Atacama ad Breas, Alamiro Larrañaga." Type: CHILE, Prov. Huasco: Breas, A. Larrañaga s.n. (holotype: SGO 60505!; isotype: LP 75395!, LP002133 digital image!).

Perennial herbs, 2.5–43 cm high, sometimes very delicate, branched from the base or unbranched. Leaves simple, herbaceous, blade elliptic, oblong, oblong-lanceolate, oblanceolate, linear-oblong or narrowly obovate, margins entire, dentate, sinuate, slightly lobate to pinnatisect, pinnately veined, lobes triangular, linear to ovate or oblong, entire to lobate, lobes rounded or truncate, apex acute or obtuse, midvein cylindrical, slightly strigose or araneose-pubescent adaxially, tomentose or araneose-lanose abaxially; lower leaves 0.3–9 cm long, 0.1–2.5 cm wide, loosely to tightly arranged, numerous to absent, margin planate or revolute, petiole winged; upper leaves 0.5–3 cm long, 0.09–1.7 cm wide, alternate, well developed or bracteiform, sessile. Capitula 2–55(–90), homogamous, grouped in lax or dense cymes, erect or divaricate, forming a racemiform, corymbiform or paniculiform synflorescence, peduncles 2–15.5 mm long, sometimes thickened below the capitulum, occasionally the longer peduncles give the appearance of solitary capitula or corymbs of dichotomous cymes in smaller plants or when the lower capitula of the ramifications are young; receptacle alveolate, planate to

slightly convex, glabrous, naked. Involucre 2- or 3-seriate, phyllaries 3–9 × 0.8–2 mm, subequal or the outer ones shorter, all or most of them tightly enfolding the marginal florets (paleaceous phyllaries), some of them rotated up to 180° regarding the other phyllaries, margins usually scarious, apex sometimes purplish; outer phyllaries narrowly to broadly ovate, elliptic, concave to navicular, glandular-pubescent, completely lanose, or lanose only at the base; intermediate phyllaries (when present) ovate, concave or somewhat planate, glabrous or glandular-pubescent; inner phyllaries ovate, oblong-ovate, oblong, concave, or somewhat planate, glabrous, margins ciliate or scarious, sometimes completely scarious, apex sometimes purple. Florets 15–50, isomorphic, corolla 3–11 mm long, bilabiate, outer lip 3-toothed, inner lip bifid, white, pink, violet, purple, lilac; stamens inserted in the corolla throat, anthers 1.5–4 mm long, apical appendage lanceolate, acute, with antheropodium, tails smooth; styles 0.7–0.8 mm long, cleft into 2 truncate branches with an apical crown of rounded papillae, with stylopodium surrounded by a nectariferous disc at the base of the style. Cypselae 0.8–2 mm long, surface tuberculate, with carpopodium, pilose or villose, twin trichomes 125–400 µm long, scarce glandular biseriate or glandular uniseriate trichomes, white or copper colored. Pappus uniseriate, dimorphic, pappus of outer fruits 0.8–1 mm long, pappus of inner fruits 2–5 mm long, bristles wide and planate or thin and cylindrical, barbellate to plumose, cilia 125–375 µm long, white. Pollen spheroidal, small or medium size, mean polar diameter 21.2–28.2 µm, tricolporate, pollen surface microechinate, exine *Oxyphyllum* type, that is, ectosexine and endosexine equally thick, separated from each other by zigzag (nonparallel to nexine) internal tectum (Crisci 1974a, 1976). $2n = 40$ (under *L. glandulosa*, *L. senecioides*; Grau 1987).

DISTRIBUTION AND ECOLOGY. Chile, in Antofagasta, Araucanía, Atacama, Biobío, Coquimbo, Maule, Metropolitana de Santiago, Ñuble, O'Higgins, and Valparaíso Regions; it grows in sandy soils such as coastal dunes, on hills of the Chilean Coastal Range, under cacti or among rocks, among sclerophyllous shrubs, in grasslands of the sclerophyllous habitats of the central valley, sometimes in the understory of trees, and in low ravines close to roads, up to 2,000 masl (San Martín et al. 1992; García 2010).

PHENOLOGY. Collected in flower from September to January.

VERNACULAR NAMES. Blanquillo (Hoffman 1978; Lazo & Stone 133, CONC), groundsel-like Trixis (Hooker 1825).

NOTES.

1. Multivariate analyses performed by Apodaca et al. (2021) showed that there are no morphological gaps among specimens of *Leucheria cerberoana*, *L. cumingii*, *L. glabriuscula*, *L. glandulosa*, *L. menana*, *L. multiflora*, *L. oligocephala*, *L. senecioides*, *L. tenuis*, and *L. tomentosa*, supporting the hypothesis of combining these into a single species. In addition, these taxa share synapomorphies (marginal florets and fruits tightly enclosed

by phyllaries, synaptospermy, dimorphic pappus) that set this species apart from the remaining species of *Leucheria*. The correct name for this species is *Leucheria tomentosa* (Less.) Crisci (Apodaca et al. 2021) because the oldest legitimate name is *Trixis senecioides* Hook., but *Leucheria senecioides* Hook. & Arn. (1830) is an already published name and thus is unavailable.

2. Carlo Giuseppe Bertero (1789–1831) was an Italian physician and botanist born in Torino who traveled and collected in Valparaíso, Quillota, and Juan Fernández Islands, Chile, from 1827 to 1829. Bertero published an account on Chilean plants in several articles in *El Mercurio Chileno*, in which the taxa were listed but not described, with notes on common names, uses, and plant peculiarities. Among these names are *Chabraea abbreviata* Bertero, *C. elongata* Bertero, *C. prenanthoides* Bertero, *C. tenuior* Bertero, and *C. viscida* Bertero; they are all *nomina nuda*. Bertero's new taxa from his Chilean collections were mentioned in the works of many European botanists, among them Luigi Colla (1766–1848) in "Plantae Rariores in Regionibus Chilensibus" (1835), who validly published Bertero's names. However, other botanists (de Candolle, Steudel), probably ignoring Colla's work, proposed new names for Bertero's *nomina nuda*, thus generating superfluous names. Bertero's specimens were never found, not even at his workplace at TO-HG (Herbarium Universitatis Taurinensis; Delprete et al. 2002).
3. Rémy (1847:388; in *L. menana*) and Philippi (1894:104; in *L. cerberoana*) mentioned yellowish corollas, and Don (1830:217; in *L. glandulosa*) mentioned reddish corollas for this species. It is possible that these authors worked with herborized specimens with a change in the corolla color. However, variation in the corolla color in living plants should not be ruled out; for example, there are corollas that range from white to purple in the same specimen (e.g., *Quezada & Ruiz* 1, CONC).
4. The florets of this species are fragrant (*Jiles* P. 1814, CONC, LP).

ADDITIONAL SPECIMENS EXAMINED. CHILE.

REGION ANTOFAGASTA: Prov. Antofagasta: cerca de Hueso Parado, en Taltal, 17 Sep 1967, O. Zöllner 1915 (LP), 1953, M. Ricardi 2691 (CONC); Taltal, 26 Sep 1940, E. Barros 2607 (LP), 1925, E. Werdermann 110 (CONC), Oct 1925, E. Werdermann 808 (CONC); Taltal, quebrada Anchuña, 1953, M. Ricardi 2544 (CONC); Taltal, Cascabeles, 1954, M. Ricardi 3108 (CONC); Taltal, cerro Perales, 3 Oct 1987, S. Teillier 558 (CONC); Taltal, en la bajada, Sep 1967, O. Zöllner s.n. (CONC 178154); quebrada de Paposo, Sep 1952, N. Bahamonde s.n. (LP 671636), Sep 1991, *Quezada & Ruiz* 198 (CONC), 2 Oct 1987, S. Teillier 552 (CONC); Paposo, 1969, C. Jiles P. 5403 (CONC), Oct 1981, O. Zöllner 12440 (CONC); colina sobre Paposo, camino a mina Julia, 1991, *Taylor et al.* 10722 (CONC); quebrada Peralito, Sep 1991, *Quezada & Ruiz* 370 (CONC); quebrada de

las Cortaderas, Sep 1941, E. Pisano V. & Bravo 252 (CONC); quebrada Agua Grande, Sep 1941, E. Pisano V. & Bravo 605 (CONC); camino Agua del Oro- quebrada de la Vaca, Sep 1941, E. Pisano V. & Bravo 187 (CONC); quebrada Panul, al N de Paposo, Oct 1941, E. Pisano V. & Bravo 1 (CONC); quebrada Matancilla, Nov 1997, M. Dillon & Villarreal 8127 (CONC); quebrada de Miguel Díaz, Nov 1997, M. Dillon et al. 8081 (CONC). REGION ARAUCANÍA: Prov. Malleco: Mininco, Oct 1974, G. Montero O. 9420 (CONC). REGION ATACAMA: Prov. Chañaral: Chañaral, 21 Sep 1941, E. Barros 2620 (LP); puerto de Chañaral, 8 km al NE, Oct 1941, E. Pisano V. & Bravo 532 (CONC); quebradas Faldas Verdes, Sep 1952, M. Ricardi 2234 (CONC). Prov. Copiapó: Pajonales, Dec 1886, Geisse s.n. (CONC 93799). Prov. Huasco: dept. Freirina, quebrada de Carrizal Bajo, 17 Sep 1957, A. Cabrera 12664 (LP), Sep 1957, M. Ricardi & C. Marticorena 4428/813 (CONC); Carrizal Bajo, Sep 1952, M. Ricardi 2280 (CONC); camino Carrizal Bajo-Huasco, Oct 1991, S. Teillier et al. 2582 (CONC); dept. Freirina, llanos de Carrizalillo, a 4 km de Carrizalillo hacia Vallenar, 24 Sep 1941, C. Muñoz & P. Johnson 1996 (LP); Carrizalillo, 23 Oct 1971, C. Marticorena et al. 1818 (LP); Alto de Las Lozas, Oct 2011, Lazo & Stone 133 (CONC); quebrada Bandurrias, Sep 1991, *Quezada & Ruiz* 237 (CONC). REGION BIOBÍO: Prov. Biobío: fundo El Tambillo, Nov 1935, A. Pfister 2193 (CONC, LP), Nov 1950, A. Pfister s.n. (CONC 10864); Candelaria, Arenales de Los Setenta, 1 Nov 1935, C. Junge s.n. (CONC 5569, LP); Pangal del Laja, Oct 1962, M. Ricardi 5207 (CONC); Salto del Laja, Oct 1969, E. Weldt 163 (CONC); Antuco, Nov 1964, G. Montero O. 6960 (CONC); Coigüe, 18 Oct 1915, C. Baeza s.n. (CONC 93900); San Rosendo, Sep 1926, Joseph 4403 (CONC). Prov. Concepción: fundo La Valencia, Monte Aguila, 1–3 Nov 1939, G. Looser 3991 (LP); Dichato, 20 Nov 1944, E. Barros 3181 (LP), 20 Nov 1944, E. Barros 3909 (LP), Nov 1947, Budnick s.n. (CONC 7792), Oct 1954, A. Pfister s.n. (CONC 18030); La Posada, 30 Nov 1937, E. Barros 2614, 2637 (LP); dunas de San Vicente, 24 Oct 1934, C. Junge 1008 (LP), 26 Oct 1934, C. Junge s.n. (CONC 6284, LP); Quilacoya, Dec 1940, A. Pfister s.n. (CONC 21251); cerro Caracol, Nov 1923, H. Gunckel 2052 (CONC); Isla Rocuant, Nov 1994, *Quezada & López* 1 (CONC), Oct 1994, *Quezada & C. Baeza* 4 (CONC). REGION COQUIMBO: Prov. Choapa: dept. Illapel, carretera Panamericana, 6 km al N de Los Vilos, al E del camino, 16 Oct 1971, C. Marticorena et al. 1365 (LP); Los Vilos, 3 Oct 1965, P. Kohler & Weisser 77 (CONC, LP), 11 Sep 1965, P. Kohler 164 (CONC, LP), 26 Sep 1952, N. Bahamonde s.n. (LP), 14 Sep 1957, A. Cabrera 12545 (LP), Nov 1961, C. Jiles P. 3873 (CONC), Sep 1972, G. Montero O. 8799 (CONC), Oct 1965, G. Montero O. 7204 (CONC), Nov 1965, O. Tarragó s.n. (CONC 93891); N de Los Vilos, Sep 1989, H. Niemeyer et al. 89-138 (CONC), Nov 1952, C. Jiles P. 2328 (CONC, LP), Sep 1957, M. Ricardi & C. Marticorena 4251 (CONC); 20 km al S de Los Vilos, 14 Sep 1957, M. Ricardi & C. Marticorena 4240/625 (CONC, LP); 30 km al N de Los Vilos, Sep 1952, M. Ricardi 2001 (CONC); entre Pichidangui y Los Vilos,

Oct 1963, *C. Marticorena* & *O. Matthei* 71 (CONC); Los Vilos, carretera Panamericana, cerca de Los Vilos, 12 Oct 1966, *G. Kausel* 5227 (LP); Caleta Manso, 9 km N de Huentelauquen, Oct 2000, *S. Teillier* & *Márquez* 4858 (CONC); Huentelauquen, 20 Oct 1955, *C. Jiles* P. 2811 (CONC); 1 km al S de paso superior Palo Colorado, Oct 1971, *C. Marticorena et al.* 1351 (CONC); 1 km al S de Chigualoco, Oct 1980, *C. Marticorena* 9504 (CONC). Prov. Elqui: carretera Panamericana, frente a Tongoy, 6 Dec 1953, *G. Kausel* 3739 (LP); a ~4 km de Tongoy, 21 Sep 1966, *G. Kausel* 5177 (LP); dept. La Serena, Choros Bajos, 21 Oct 1971, *C. Marticorena et al.* 1689 (CONC, LP); La Serena, 14 Sep 1927, *E. Barros* 2653 (LP); La Serena, El Tofo, 10 Sep 1926, *E. Barros* 1456 (LP); La Serena, Punta Teatinos, 23 Oct 1948, *F. Behn s.n.* (CONC 8571, 21214, LP); 40 km al S de La Serena, Sep 1957, *M. Ricardi* & *C. Marticorena* 4331/813 (CONC); dept. Coquimbo, Playa de la Herradura, al S de la bahía de Coquimbo, 14 Sep 1941, *C. Muñoz P. & G. Johnson* 1847 (LP); Herradura, 12 Sep 1927, *E. Barros* 2639 (LP), 26 Sep 1943, *G. Montero* O. 1844 (CONC), 27 Sep 1917, *C. Skottsberg* 1051 (LP); dept. Illapel, carretera Panamericana, 3 km al N de Puerto Oscuro, 16 Oct 1971, *C. Marticorena et al.* 1423 (LP); entre Tongoy y Guanaqueros, Sep 1965, *Gleisner* 6 (CONC); dept. Illapel, Hacienda Cabrera, 21 Nov 1952, *C. Jiles* P. 2292 (CONC, LP); Illapel, 18 Sep 1926, *E. Barros* 2647 (LP), 19 Sep 1944, *E. Barros* 7575, 7576 (LP); dept. Ovalle, Talinay, 13 Sep 1949, *C. Jiles* P. 1397 (CONC, LP); zona interior Panamericana, entre Socos y Talinay, 11 Oct 1966, *G. Kausel* 5233 (LP); dept. Ovalle, carretera Panamericana, frente a Salala, 17 Oct 1971, *C. Marticorena et al.* 1456 (LP); Zorrilla, 17 Sep 1950, *C. Jiles* P. 1814 (CONC, LP); carretera Panamericana, 40 km al S de La Serena, 15 Sep 1957, *A. Cabrera* 12586 (LP); Totoralillo, cerca de Los Vilos, 11 Sep 1948, *A. Pfister* 8293 (LP), Sep 1948, *F. Behn s.n.* (CONC 8293); carretera Panamericana, Totoralillo, 14 Sep 1957, *A. Cabrera* 12536 (LP). Prov. Limarí: Morrillos, 30 Oct 1966, *P. Kohler* 596 (LP); dept. Ovalle, carretera Panamericana, 19 km al N de la quebrada del Teniente, 16 Oct 1971, *C. Marticorena et al.* 1437 (CONC); quebrada El Teniente, Sep 1952, *M. Ricardi* 2053 (CONC); Fray Jorge, Oct 1963, *C. Jiles* P. 4482 (CONC), Sep 1968, *C. Jiles* P. 5191 (CONC); Alcones 7 Oct 1961, *C. Jiles* P. 3838 (CONC). REGION LIBERTADOR BERNARDO O'HIGGINS: Prov. Cachapoal: Baños de los Cauquenes, Oct 1879, without leg. (LP 6030); Termas de Cauquenes, 18 Nov 1965, *M. Mahu* 1039 (LP), Oct 1952, *Pfister s.n.* (CONC 12981), Nov 1952, *Pfister s.n.* (CONC 13056, 13088), Oct 1938, *Milner s.n.* (CONC 21240); valle de Cocalán, Oct 1931, *Grandjot s.n.* (CONC 1011); entrada camino a Sewell, Nov 1970, *C. Marticorena & E. Weldt* 644 (CONC). Prov. Cardenal Caro: Pichilemu, Sep 1929, *G. Montero* O. 1771 (CONC). Prov. Colchagua: cordillera de San Fernando, 1866, without leg. (LP); sector La Rufina, Nov 2004, *Baxter et al.* 1380 (CONC); La Rufina, fundo Bellavista, Jan 1951, *M. Ricardi s.n.* (CONC 10071); cerro Centinela, Oct 1962, *G. Montero* O. 6581 (CONC); Sierra de Bellavista, 25 Oct 1970, *O. Zöllner* 4451 (LP); Lolol, 19 Sep 1937, *E. Barros* 2612, 2613 (LP). REGION

MAULE: Prov. Curicó: Lelico, 19 Oct 1938, *E. Barros* 2629 (LP); Quinta, 18 Sep 1953, *Y. Bravo s.n.* (CONC 93883); departamento de Vichuquén, Alcántara, 25 Sep 1918, *E. Barros* 2643 (LP). REGION METROPOLITANA DE SANTIAGO: Prov. Chacabuco: Altos de Chicauma, 21 Oct 2006, *N. García* 3005 (CONC); Altos de Chicauma, fundo Las Mercedes, Sep 2002, *N. García et al.* 3334 (CONC); Altos de Chicauma, sector Loma Blanca, Sep 2002, *N. García & Valdivia* 3129 (CONC); San Miguel, Oct 1879, without leg. (LP s.n.); cuesta La Dormida, Nov 2000, *S. Teillier & Márquez* 4907 (CONC); Baños de Colina, Sep 1939, *Milner s.n.* (CONC 21230, 21244), 27 Oct 1919, *K. Behn s.n.* (CONC 21227), Oct 1964, *H. Gunckel* 42239 (CONC), Nov 2001, *C. Aedo* 6732 (CONC) Oct 1941, *K. Behn s.n.* (CONC 21229). Prov. Cordillera: Reserva Nacional Río Clarillo, Feb 2004, *Romero & Aldunate* 49 (CONC). Prov. Maipo: Aculeo, cuesta El Cepillo, Oct 2001, *S. Teillier* 5929 (CONC). Prov. Santiago: San Bernardo, Sep 1930, *E. Barros* 3603 (CONC); Tiltill, Sep 1965, *G. Montero* O. 7183 (CONC); Til Til, Oct 1879, without leg. (LP 6027); Las Condes, Arrayán, 15 Oct 1939, *C. Junge s.n.* (CONC 6678, LP); San Cristóbal, Oct 1877, without leg. (LP 6031); Polpaico, 26 Sep 1947, *E. Barros* 7432 (CONC, LP), 7436 (LP); cerros de Las Condes, Oct 1937, *C. Junge* 2081 (CONC), *s.n.* (CONC 6631); Las Condes, El Arrayán, 15 Nov 1939, *C. Junge s.n.* (CONC 6699, LP); El Arrayán, Sep 1969, *M. Mahu s.n.* (CONC 37064), Oct 1962, *C. Junge s.n.* (CONC 44729); quebrada de Ramón, Sep 2000, *G. Tome* 158, 163 (CONC); Santuario de la Naturaleza Yerba Loca, Oct 1999, *M. Kalin & A. Humaña* 99-3626 (CONC), id., W de estero Manzanito, Nov 1999, *M. Kalin & A. Humaña* 99-5319 (CONC), id., cerro El Tollo, Feb 1999, *M. Kalin & A. Humaña* 99-5235 (CONC); San Juan de Pirque, 11 Nov 1914, *V. Baeza s.n.* (CONC 93899); Macul, Oct 1927, *P. Jaffuel s.n.* (CONC 93922); río Mapocho, 24 Sep 1943, *E. Barros* 3180 (LP); cerros de Peñalolén, 12 Oct 1965, *M. Mahu* 997 (LP), 21 Nov 1965, *M. Mahu s.n.* (BAB); Peñalolén, Nov 1946, *Muñoz s.n.* (CONC 93779); Manquehue, Nov 1933, *K. Behn s.n.* (CONC 21247); quebrada San Ramón, *G. Tome* 159 (CONC); San Ramón, Oct 1979, without leg. (LP 6022); quebrada de Macul, Nov 1952, *H. Gunckel* 25008 (CONC); cerro Lo Chena, 30 Oct 1950, *H. Gunckel* 26347 (CONC); cerro Montenegro, 10 Oct 1970, *O. Zöllner* 4330 (LP); cuesta de Chacabuco, Nov 1970, *C. Marticorena & E. Weldt* 607 (CONC); La Reina, Oct 1953, *H. Gunckel* 32023 (CONC). Prov. Talagante: Peñaflores, cerro Manuel Rodríguez, 2 Oct 1938, *G. Looser* 3775 (LP). REGION ÑUBLE: Prov. Diguillín: camino Concepción-Bulnes, Dec 1945, *A. Pfister s.n.* (CONC 4930). Prov. Itata: dept. Itata, puente El Roble, 14 Nov 1972, *S. Gajardo & H. González s.n.* (CONC 93856); El Roble, Oct 1961, *C. Marticorena & O. Matthei* 2161 (CONC); campos del Itata, Nov 1934, *G. Montero* O. 1951 (CONC). REGION VALPARAÍSO: Prov. Los Andes: cerro de La Virgen, Sep 1952, *Mancilla s.n.* (CONC 13288), 23 Sep 1923, *E. Barros* 2646 (LP), 3343 (CONC); Resguardo Los Patos, Oct 1975, *O. Zöllner* 9940 (CONC). Prov. Marga Marga: San Felipe, cerro Quilpué, 25 Sep 1923, *E. Barros* 2645 (LP);

Marga-Marga, Oct 1920, *P. Jaffuel* 852 (CONC), Sep 1931, *P. Jaffuel* 3121 (CONC); cerca de Limache, 12 Oct 1966, *O. Zöllner* 1133 (LP); Bolsico, Sep 1931, *P. Pirion* 1431 (CONC). Prov. Petorca: Ligua, Quebradilla, 23 Sep 1947, *E. Barros* 7433, 7435 (LP); Zapallar, Aug 1951, *Hartwig s.n.* (CONC 11560); quebrada El Tigre, Zapallar, 15 Oct 1963, *M. Mahu* 2315 (LP); Pichicuy, 1 Nov 1974, *C. Marticorena et al.* 152 (CONC). Prov. Quillota: dept. Quillota, 2 km S de Concón, 4 Nov 1971, *S. de Remer s.n.* (CONC 34580); camino de Quillota a Concón, Sep 1929, *K. Behn s.n.* (CONC 1245); cerro de La Cruz, Sep 1936, *K. Behn s.n.* (CONC 21246, 21249); cerro La Campana, Nov 1930, *Grandjot s.n.* (CONC 24264); Puerta Ocoa, Oct 1970, *O. Zöllner* 3253 (CONC). Prov. San Antonio: El Tabo, 17 Nov 1965, *P. Kohler* 437 (LP), Dec 1956, *Levi s.n.* (CONC 93826); El Quisco, Dec 1955, *Levi* 3213 (CONC); El Quisco, Punta de Tralca, 10 Oct 2015, *S. Teillier et al.* 7985 (CONC); rocas de Santo Domingo, Oct 1950, *A. Pfister & M. Ricardi s.n.* (CONC 9756); Algarrobo, Oct 1960, *K. Hochstetter s.n.* (CONC 93842); Algarrobo, La Puntilla, 24 Sep 1966, *G. Kausel* 5210 (LP). Prov. San Felipe de Aconcagua: San Felipe, 15 Nov 1970, *O. Zöllner* 4453 (LP); cerro de Lo Vargas, Sep 1953, *Torres s.n.* (CONC 14147); Cuesta de Chacabuco, S of Los Andes, 5 Nov 1948, *E. Killip & E. Pisano V.* 39788 (LP); Tabaco, 17 Oct 1971, *O. Zöllner s.n.* (LP). Prov. Valparaíso: Quintero, Punta San Fuentes, 13 Nov 1971, *M. Mahu* 7665 (LP); Quintero, Sep 1958, *Torres s.n.* (CONC 25170), Sep 1931, *A. Garaventa* 1885 (CONC); balneario Algarrobo, en Mirasol al lado laguna, 6 Nov 1960, *M. Mahu* 406 (LP); Algarrobo, 1 Nov 1953, *G. Kausel* 3708 (LP), Dec 1960, *K. Hochstetter s.n.* (CONC 93887); Quinteros, El Durazno, 9 Nov 1942, *C. Junge s.n.* (CONC 6846, LP); Concón, 12 Oct 1938, *G. Looser* 3777 (LP), 19 Oct 1966, *P. Kohler* 563 (LP); La Ventana, Sep 1953, *H. Gunckel* 36430 (CONC); Las Zorras, 23 Sep 1917, *C. Skottsberg* 1022 (LP); cuesta de Zapata, 7 Oct 1953, *A. Cabrera* 11445 (CONC, LP); Horcón, Sep 1959, *H. Gunckel s.n.* (CONC 93821); Tunquén, estero Casablanca, Nov 2001, *S. Teillier* 5873, 5891 (CONC); fundo Las Cenizas, Sep 1936, *K. Behn s.n.* (CONC 21243); camino a Laguna Verde, Oct 1922, *K. Behn s.n.* (CONC 21239); fundo Las Siete Hermanas, Oct 1940, *Schwabe s.n.* (CONC 21223); Viña del Mar, Sep 1932, *K. Behn s.n.* (CONC 24324); Valparaíso, Oct 1932, *K. Behn s.n.* (CONC 26823); cordillera de la costa, Sep 1969, *O. Zöllner* 3682 (LP).

29. *Leucheria viscida* (Bertero ex Colla) Crisci, Darwiniana 20: 67. 1976. *Chabraea viscida* Bertero, Merc. Chil.: 601. 1829, *nom. nud. pro syn. Chabraea viscida* Bertero ex Colla, Mem. Reale Accad. Sci. Torino 38: 22. 1835. "Chili, prope Tagua-Tagua." *Leucheria viscida* (Bertero ex Colla) Grau & Zinnecker, Bot. Jahrb. Syst. 108: 231. 1987, *comb. superfl.* Type: CHILE, Prov. Cachapoal: Tagua Tagua, Oct 1828, *C. Bertero* 160 (lectotype designated here: P!, P00732714 digital image!; isoelectotypes: F0049171, G-DC00492907 digital images! [this sheet contains a leaf that does not

correspond to *Chabraea viscida*], NY!, photograph LP!, NY00163270 digital image!, [Bertero s.n.] P00732715 digital image!). Figure 40.

Lasiorrhiza rosea Poepp. ex Less., Syn. Gen. Compos.: 405. 1832, non *Leucheria rosea* Poepp. ex Less., 1832: 402. "Chile (Bertero et Pöppig) . . . (Percidium roseum Pöpp. mss. Chabrea viscosa Bert. mss.)." *Percidium roseum* Poepp. ex Less., Syn. Gen. Compos.: 405. 1832, *nom. nud. pro syn. Chabraea rosea* (Poepp. ex Less.) DC., Prod. 7: 59. 1838. *Leucheria rosea* (DC.) Reiche, Fl. Chile 4: 427. 1905, *nom. illeg. hom.*, non *Leucheria rosea* Poepp. ex Less., 1832. Type: CHILE, Prov. Biobío: In camp. lapidos. alpin. Chil. austr. ad Truvun-Leuvu [Trubunleo], "Percidium roseum," 1827–1829, *E. F. Poeppig Coll. Pl. Chil.* III 216, *Diar.* 878 (lectotype designated by Crisci [1976:69]: P!, P00732713 digital image!; isoelectotypes: G-DC00492921, HAL0113158 digital images!). Chili, austral Andes, "Percidium roseum," *Poeppig s.n.* (isoelectotype: P00732639 digital image!). See Notes.

Leuceria neaei DC., Prodr. 7: 58. 1838. CHILE: "In Peruvia aut Chili, legit. cl. Née." *Lasiorrhiza neaei* (DC.) Kuntze, Revis. Gen. Pl. 1: 350. 1891, *syn. nov.* Type: Mr. Née, herb. Thieb., 1813 (holotype: G-DC00492343 digital image!). See Distribution and Ecology.

Leuceria glandulosa Phil., Anales Univ. Chile 41: 743. 1872, *nom. illeg. hom.*, non *Leucheria glandulosa* D. Don, 1830. "Se cria en la cordillera de Chillan." *Lasiorrhiza philippiana* Kuntze, Revis. Gen. Pl. 1: 350. 1891, *nom. nov. pro Leucheria glandulosa* Phil. *Leuceria chillanensis* Reiche, Fl. Chile 4: 413. 1905, *nom. nov. et superfl. pro L. glandulosa* Phil. Type: CHILE, Prov. Diguillín: Chillán, *R. Philippi* 1123 (holotype: SGO 60491!; isotype: LP 75209!).

Leuceria leucomalla Phil., Anales Univ. Chile 87: 100. 1894. "In Andibus de Popeta dictis invenis Fr. Philippi." Type: CHILE, Prov. Cachapoal: Andes de Popeta, *F. Philippi s.n.* (holotype: SGO 60499!, photograph LP!).

Perennial herbs, caulescent, 20–80 cm high. Leaves oblong, oblanceolate, pectinate, pinnatipartite or pinnatisect, lobes entire, deltoid, midvein cylindrical, margin usually revolute, strigose or glandular-pubescent adaxially, tomentose abaxially; lower leaves rosulate, 6–20 cm long, 0.6–2 cm wide, disposed in one or more than one bundle by sprouting rhizome, petiole winged. Capitula (3–)4–15, grouped in lax cymes forming a lax racemiform or paniculiform synflorescence. Involucres 5–10(–11) mm high, 2-seriate, phyllaries glandular- and lanose-pubescent, generally apex purplish, outer phyllaries shorter, concave, inner phyllaries planate or concave, sometimes margins scarious; paleaceous phyllaries present. Florets 25–30, corolla pink, purple, red. Cypselae villose, twin trichomes 325–410 μ m long. Pappus 5–6 mm long, isomorphic, bristles wide and flat, often widened and yellowish at the apex, plumose, cilia ~240 μ m long, white or pale yellow.

DISTRIBUTION AND ECOLOGY. Chile, in Araucanía, Biobío, Maule, Metropolitana de Santiago, Ñuble, and O'Higgins Regions, also cited for Coquimbo and Valparaíso Regions (Ríos et al. 2018). This species (sub *L. neaei*) was cited by Philippi (1870) for Mendoza, Argentina, and by de Candolle (1838) for Peru. In the latter case, Peru occupied an extensive part at the time of de Candolle's description of what is today

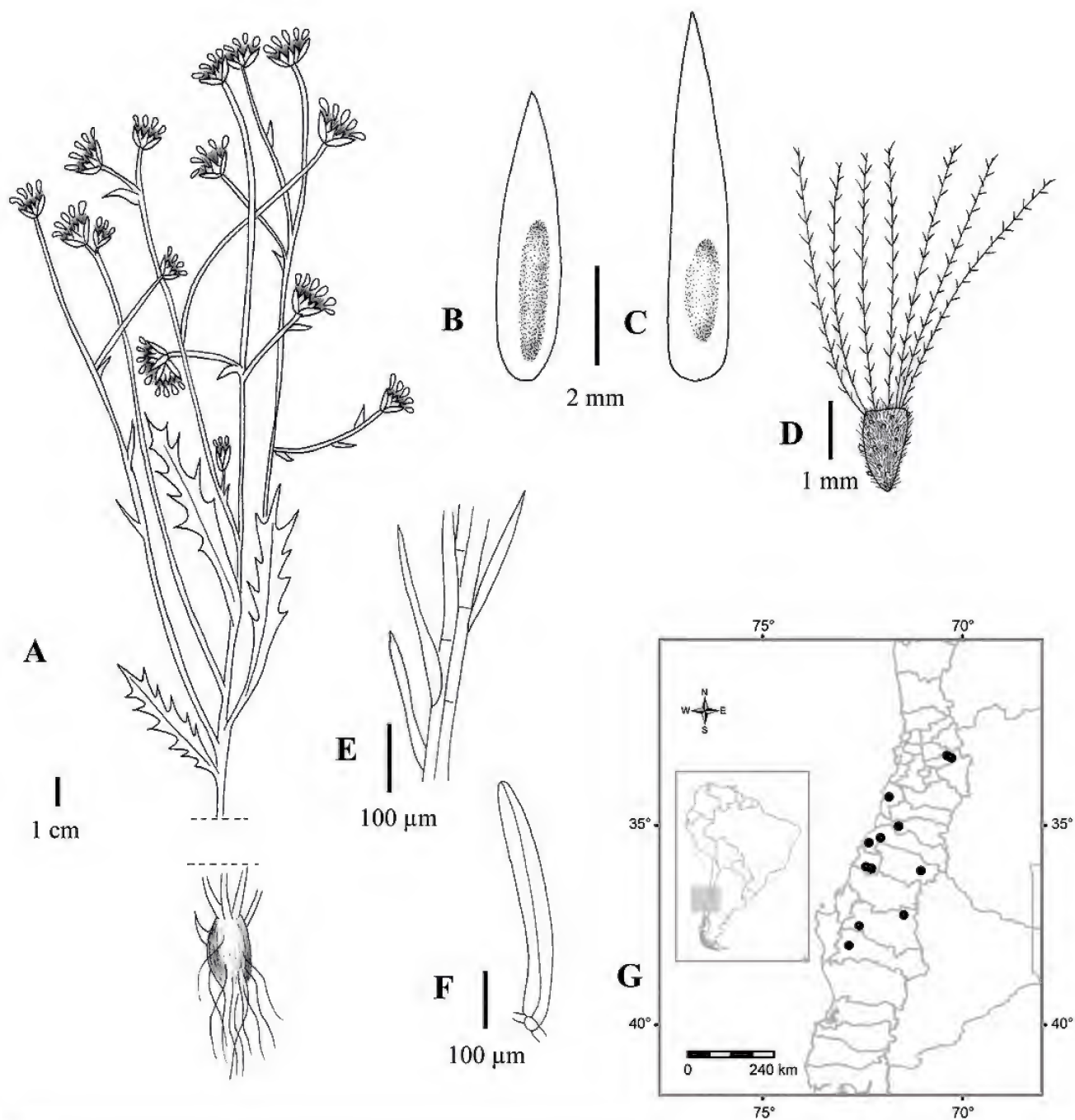


FIGURE 40. *Leucheria viscida* (Bertero ex Colla) Crisci. A. Habit, upper part of the plant and rhizome and roots (drawn from the photograph of the type specimen). B. Outer phyllary of the involucre. C. Inner phyllary of the involucre. D. Fruit and pappus. E. Detail of pappus bristle. F. Fruit twin trichome. G. Distribution map. A, Ruiz 15 (LP; upper part) and Bertero 160 (GH; lower part); B–F, Ruiz 15 (LP).

Chilean territory. For this reason and because we did not find specimens of *L. viscida* north of Coquimbo (Chile), we do not consider Peru part of the geographical range of this species. It grows on dry soils, on the slopes of hills, and on cliffs, up to 2,300 masl.

PHENOLOGY. Collected in flower from December to March.

VERNACULAR NAMES. Unknown.

NOTES.

1. Bertero published the name *Chabraea viscida* in 1829 on the basis of specimens collected in central Chilean provinces. Bertero did not describe the species, generating an invalid name (*nomen nudum*; see Notes for *L. tomentosa* regarding Bertero's specimens). On the other hand, Lessing (1832:405) described *Lasiorrhiza rosea* Poepp. ex Less. on the basis of Bertero's specimen of *Chabraea viscida* and specimens of Poeppig with the label annotations "Perdicium roseum." In 1835 Colla validly published *Chabraea viscida* Bertero ex Colla on the basis of Bertero's specimens. The establishment of the name *Leucheria rosea* by Lessing (1832:402) in the preceding pages of the same publication in which he published *Lasiorrhiza rosea*, with a different nomenclatural type, generated confusion and many illegitimate names in the following years (see Notes for *Leucheria rosea*). The first valid name for *Leucheria viscida*, based on the original specimens of Bertero, was given by Crisci (1976) as *Leucheria viscida* (Bertero ex Colla) Crisci because the priority of the use of the epithet "rosea" corresponds to the species *Leucheria rosea* Poepp. ex Less.
2. *Leucheria viscida* sometimes resembles *L. gilliesii* (see Notes for *L. gilliesii*). The specimen Kurtz 7118 (LP) from Mendoza Province, Argentina, cited by Katinas (2015) as *L. viscida* is, in fact, *L. gilliesii*. Therefore, the only citation of the presence of *L. viscida* in Argentina is that of Philippi (1870:177), who cited the species from the Tunuyán valley in Mendoza Province. We prefer to maintain as dubious the distribution of *L. viscida* in Argentina.
3. *Leucheria viscida* resembles *L. lithospermifolia* (see Notes for *L. lithospermifolia*).

ADDITIONAL SPECIMENS EXAMINED. CHILE.

REGION ARAUCANÍA: Prov. Malleco: cordillera de Nahuelbuta, Jan 1877, without leg. (LP 6025); entre Angol y Puren, Dec 1953, *Sparre & Smith* 154 (CONC); Deuco, Dec 1960, *G. Montero* O. 6391 (CONC). REGION BIOBÍO: Prov. Biobío: Abanico, Jan 1982, *G. Montero* O. 12161 (CONC). REGION LIBERTADOR BERNARDO O'HIGGINS: Prov. Cardenal Caro: S de Pichilemu, Dec 1989, *H. Niemeyer* 89-D (CONC). REGION MAULE: Prov. Cauquenes: Pelluhue, Chanco, Dec 1961, *R. Quirós* s.n. (CONC 93861). Prov. Curicó: cerro Condell, 26 Dec 1940, *E. Barros* 2619 (LP). Prov. Linares: Monte Oscuro, río Achibueno, Jan 1988, *O. Zöllner* 13965 (CONC). Prov. Talca: Nirivilo, Dec 1957, *G. Montero* O. 5402 (CONC); hacienda

Mercedes, Feb 1932, *F. Ruiz* 15 (LP). REGION METROPOLITANA DE SANTIAGO: Prov. Santiago: cerro San Cristóbal, Dec 1953, *Navas* 340 (CONC); quebrada de Peñalolén, Dec 1952, *Navas* 1386 (CONC); Farellones, camino a hotel Valle Nevado, Jan 2004, *A. Muñoz* 20 (CONC); hacienda Las Mercedes, Jan 1932, *P. Ruiz* s.n. (LP 75318). REGION ÑUBLE: Prov. Diguillín: Cuesta de Queime, Dec 1967, *C. Marticorena & O. Matthei* 1086 (CONC). Prov. Itata: Nueva Aldea, fundo Santa Lucía, Dec 1936, *K. Behn* s.n. (CONC 21233). Prov. Punilla: San Carlos, cerro Alico, 4 Feb 1922, *E. Barros* 3190 (LP).

EXCLUDED SPECIES

- Leuceria contrayerba* Kurtz, Bol. Acad. Nac. Ci. 13: 206. 1892. "Crescit inter lapides regionis superioris – supra limitem plantarum lignosarum – Andium provinciae Mendozae Reipublicae Argentinae: Portezuelo de Loncoche (F. Kurtz, Herb. argentin. N° 5978; 7, II (1888); Cerro de los Baños, Valle del Río Salado superior (F. Kurtz l. c. N° 7659; 11, II, 1893)." Type: ARGENTINA, Prov. Mendoza: Cord. de Mendoza (Río Salado Sup.) Inter lapides summo montes cerro de Los Baños, 11 Feb 1893, *F. Kurtz* 7659 (lectotype designated by Zardini [1975:121]: CORD; isolectotypes: LP!, LP010356, MA763779 digital photographs!) = *Trichocline cineraria* (D. Don) Hook. & Arn., Darwiniana 19: 719. 1975.
- Leuceria conyzoides* D. Don, Philos. Mag. 11: 389. 1832. "Herb. Gillies." Type: ARGENTINA, Prov. Buenos Aires: Pampas, *J. Gillies* s.n. (lectotype designated here: K001097539 digital photograph!) = *Holochailus hieracioides* (D. Don) Cabrera, Revista Mus. La Plata, Secc. Bot. 11: 7. 1968.
- Leuceria echioides* D. Don, Philos. Mag. 11: 389. 1832. "Herb. Gillies." Type: ARGENTINA, Prov. Buenos Aires: Pampas of Buenos Aires, *J. Gillies* s.n. (lectotype designated here: K001097535 digital photograph!) = *Holochailus brasiliensis* (L.) Cabrera, Revista Mus. La Plata, Secc. Bot. 11: 14. 1968.
- Leucheria fasciata* Klatt, Bot. Jahrb. Syst. 8: 51. 1886. "Ecuador; in solo uliginoso montis Pichincha, alt. 4000 m (n. 386). Jan. 1881." Type: ECUADOR, Prov. Pichincha: Auf mooringen Boven an den oberen Gehangen des Pichincha, 4,000 m, 4 Jan 1881, *C. Lehman* 386 (holotype: GH, photograph LP!). = *Perezia pungens* (Humb. & Bonpl.) Less., Bol. Soc. Argent. Bot. 47: 225. 2012.
- Leucheria foliosa* Phil., Linnaea 28: 720. 1856. "Ex intimis Andibus prov. Santiago attulit orn. Germain." Type: CHILE, Prov. Santiago: Las Arañas, Cajón del Mapocho, Jan 1882, *R. Philippi* 1132 (LP!) (neotype designated by Crisci [1974b:42]). = *Martcorenia foliosa* (Phil.) Crisci, J. Arnold Arbor. 55: 40. 1974.
- Leucheria grandis* Hort. ex Gentil, Pl. Cult. Serres Jard. Bot. Brux.: 110. 1907, *nom. nud. pro syn.* Apparently, it is a name in a list of a species that were never described. No specimen associated with this name was found (Crisci 1976).

Leuceria stuebelii Hieron., Bot. Jahrb. Syst. 21: 372. 1896. "Peruvia: crescit supra Celendin inter Pacasmayo et Moyobamba, alt. s. m. 3200 m, ubi floret mense Maio et Junio (coll. peruv. n. 35 g)." Type: PERU, Dept. Cajamarca: Excursión de Pacamayo a Moyabamba, bajada a Celendin, 3,200 m, Apr/May 1825, A. Stübel 35g (holotype: B [destroyed] photograph F 16059!). Peru, Dept. Cajamarca, Quinuamayo, entre Encañada y Celendín, A. Sagástegui 7385 (LP!) (neotype designated by Harling [1995:29]). = *Jungia stuebelii* (Hieron.) Crisci, Bol. Soc. Argent. Bot. 13: 341. 1971.

Leuceria thrincioides Griseb., Abh. Königl. Ges. Wiss. Göttingen 19: 197. 1874. "Santiago del Estero et Cordoba, in arenosis humidis versus confinia utriusque provinciae." Type: ARGENTINA, Prov. Córdoba/Santiago del Estero: Laguna de la Villa El Chañar, 2 Dec 1871, P. G. Lorentz 8 (lectotype selected by Cabrera [1936:51]; GOET6237!; isotype: CORD00006377 digital image!) = *Holcheilus hieracioides* (D. Don) Cabrera, Revista Mus. La Plata, Secc. Bot. 11: 7. 1968.

Acknowledgments

We are grateful to the curators of herbaria for lending specimens and sharing digital photographs; to the editors and reviewers for their careful and helpful comments; and to Florencia Dosil Hiriart, Mauricio Bonifacino, Andrés Moreira Muñoz, and Sebastián Teillier for sharing their photographs of *Leucheria*. This work was supported by Consejo Nacional de Investigaciones Científicas y Técnicas, Agencia Nacional de Promoción Científica y Tecnológica, and Facultad de Ciencias Naturales y Museo, Universidad Nacional de La Plata.

Appendix: List of Exsiccatae

- Aedo, C. 6732 (*L. tomentosa*)
Agostini, P. B-35 (*L. purpurea*), B-36 (*L. suaveolens*)
Alboff, N. 415 (*L. suaveolens*), 417, 418, 419, 420, 421, 422, 424 (*Leuceria lanata*, type), 426 (*Leuceria lanata*, type), 427, 428, 429, 430, 431, 432, 433 (*Leuceria gracilis*, type)
Arancio, G. et al. 94-227 (*L. runcinata*)
Arneberg, T. 2 (*L. purpurea*), 35 (*L. purpurea*), 84 (*L. suaveolens*)
Arroyo, M. 81-280, 81-539 (*L. runcinata*), 81-614, 84-845, 84-905 (*L. salinae*), 84-1110 (*L. purpurea*), 84-1111 (*L. suaveolens*), 84-1127 (*L. purpurea*), 84-1148, 85-0034, 85-0089 (*L. suaveolens*)
Arroyo, M. & A. Humaña 20-2342, 20-2374, 99-829, 99-5259 (*L. rosea*), 99-1189, 99-1619, 99-1779 (*L. runcinata*)
Arroyo, M. & F. Squeo 85-0035, 85-0823, 85-0897, 86-0010 (*L. suaveolens*), 86-0012 (*L. purpurea*), 87-0010, 87-0054, 87-0121 (*L. suaveolens*)
Arroyo, M. et al. 20-1451 (*L. salinae*), 20-2020 (*L. rosea*), 87-0207, 87-0334 (*L. suaveolens*), 97-016, 97-025 (*L. salinae*), 98-0658, 98-0719, 98-0744 (*L. rosea*), 99-4808, 99-4901, 99-4973, 99-6150, 99-6185 (*L. hieracioides*), 99-6207, 99-6242, 99-6259 (*L. lithospermifolia*), 99-4988 (*Leucheria meladensis*, type)
Arroyo, S. et al. 137, 191, 236 (*L. suaveolens*), 320 (*L. achillaeifolia*), 322 (*L. candidissima*), 386 (*L. achillaeifolia*)
Asp, O. 25 (*L. achillaeifolia*), 175 (*L. eriocephala*)

Baeza, C. & L. Finot 3681 (*L. glacialis*)
Baeza, C. et al. 3005, 3206, 3324, 3364 (*L. lithospermifolia*)
Barros, E. 244, 254 (*L. hieracioides*), 1456, 2607 (*L. tomentosa*), 2611 (*L. rosea*), 2612, 2613, 2614 (*L. tomentosa*), 2619 (*L. viscida*), 2620 (*L. tomentosa*), 2621 (*L. hieracioides*), 2626, 2627, 2628 (*L. rosea*), 2629 (*L. tomentosa*), 2630 (*L. hieracioides*), 2631 (*L. glacialis*), 2637, 2639 (*L. tomentosa*), 2641 (*L. rosea*), 2642 (*L. gayana*), 2643, 2645, 2646, 2647, 2653 (*L. tomentosa*), 2654 (*L. gayana*), 3180, 3181 (*L. tomentosa*), 3190 (*L. viscida*), 3343, 3603 (*L. tomentosa*), 3908 (*L. hieracioides*), 3909 (*L. tomentosa*), 3912 (*L. rosea*), 6150, 6151 (*L. glacialis*), 6169 (*L. purpurea*), 7428, 7429 (*L. gayana*), 7430 (*L. gilliesii*), 7432, 7433, 7435, (*L. tomentosa*), 7436 (*Leuceria pulchella*, type), 7437 (*L. gayana*), 7438 (*L. rosea*), 7575, 7576 (*L. tomentosa*)

- Baumann 8, 186 (*L. salinae*)
 Baxter et al. 1380 (*L. tomentosa*)
 Beeskow, A. & M. Irisari 908, 968 (*L. achillaeifolia*)
 Behn, F. 8571 (*L. tomentosa*)
 Bertero, C. 157 (*Chabrea abbreviata*, type), 158 (*Chabrea elongata*, type), 159 (*Chabrea tenuior*, type), 160 (*Chabrea viscida*, type), 161 (*Leuceria acanthoides*, type), 904, 905 (*Chabrea abbreviata*, type), 906 (*Chabrea tenuior*, type), 1801 (*Chabrea abbreviata*, type)
 Bertiller, M. & A. Coronato 503, 504 (*L. candidissima*)
 Biese, W. 971 (*L. bridgesii*)
 Birabén, M. & M. Birabén 74 (*L. achillaeifolia*), 104 (*L. suaveolens*), 191 (*L. achillaeifolia*)
 Böcher, T. et al. 1578, 1647, 1851 (*L. achillaeifolia*), 2182 (*L. runcinata*)
 Boelcke, O. 790 (*L. coerulescens*), 1755 (*L. achillaeifolia*), 1778 (*L. coerulescens*), 1959 (*L. eriocephala*), 2497 (*L. floribunda*), 2598 (*L. bridgesii*), 4078 (*L. scrobiculata*), 4094, 4137 (*L. candidissima*), 4433 (*L. achillaeifolia*), 11556 (*L. eriocephala*), 12947 (*L. candidissima*)
 Boelcke, O. & M. Correa 5212 (*L. coerulescens*), 5469 (*L. eriocephala*), 5523, 5653 (*L. glacialis*), 5763, 5902 (*L. nutans*), 6043 (*L. glacialis*), 6310 (*L. achillaeifolia*), 6888, 6902, 6904, 6912 (*L. eriocephala*), 6930 (*L. nutans*), 6981, 7066 (*L. eriocephala*)
 Boelcke, O. & J. Hunziker 3631 (*L. achillaeifolia*)
 Boelcke, O. et al. 1165 (*L. achillaeifolia*), 6383, 6451, 6456 (*L. lithospermifolia*), 6499 (*L. integrifolia*), 9729 (*L. runcinata*), 9756 (*L. salinae*), 10054 (*L. scrobiculata*), 10123 (*L. runcinata*), 10295 (*L. candidissima*), 10345 (*L. glacialis*), 10368 (*L. gayana*), 10880 (*L. glacialis*), 10959 (*L. lithospermifolia*), 11005, 11165 (*L. achillaeifolia*), 11369, 11411 (*L. candidissima*), 11614 (*L. glacialis*), 11615 (*L. purpurea*), 11637 (*L. gilliesii*), 11640 (*L. purpurea*), 12377 (*L. purpurea*), 12461 (*L. suaveolens*), 12493 (*L. purpurea*), 12702, 12864 (*L. achillaeifolia*), 12947 (*L. candidissima*), 13623 (*L. lithospermifolia*), 13741 (*L. glacialis*), 13757 (*L. candidissima*), 13866 (*L. glacialis*), 13914 (*L. gilliesii*), 15035, 15152 (*L. suaveolens*), 15178, 15327 (*L. purpurea*), 15922 (*L. scrobiculata*), 16294 (*Leuceria ibari*, type)
 Bonifacino, M. et al. 62 (*L. runcinata*), 150 (*L. achillaeifolia*), 236 (*L. glacialis*), 256 (*L. eriocephala*), 273 (*L. achillaeifolia*)
 Bridarolli, A. 2082, 2162 (*L. coerulescens*), 2228 (*L. glacialis*)
 Bridges, T. 486 (*Leucheria bridgesii*, type)
 Brownless et al. 991 (*L. nutans*), 1268 (*L. gilliesii*)
 Buchtien, O. 1343 (*L. glacialis*)
 Burkart, A. 6120 (*L. glacialis*), 6466 (*L. achillaeifolia*), 9649 (*L. purpurea*)
 Burkart, A. et al. 11824 (*L. salinae*), 14407 (*L. glacialis*), 14408 (*L. salinae*), 14414 (*L. achillaeifolia*)
 Burmeister, C. 75 (*L. purpurea*), 121, 213 (*L. achillaeifolia*), 2126 (*L. glacialis*)
 Cabrera, A. 3445, 3471, 3483 (*L. rosea*), 3623, 3649 (*L. glacialis*), 4826 (*L. achillaeifolia*), 5028 (*L. glacialis*), 5090 (*L. coerulescens*), 5141 (*L. glacialis*), 5905 (*L. eriocephala*), 5990 (*L. coerulescens*), 6238 (*L. glacialis*), 11152 (*L. amoena*), 11161, 11188 (*L. achillaeifolia*), 11203 (*L. coerulescens*), 11282 (*L. achillaeifolia*), 11445 (*L. tomentosa*), 11503 (*L. coerulescens*), 11522 (*L. glacialis*), 12536, 12545, 12586, 12664 (*L. tomentosa*), 18671 (*L. achillaeifolia*), 19703 (*L. lithospermifolia*), 20471 (*L. glacialis*), 20531 (*L. purpurea*), 20559 (*L. glacialis*), 21215 (*L. achillaeifolia*, *L. glacialis*), 21216, 21962, 21957 (*L. glacialis*), 22859, 22979 (*L. achillaeifolia*)
 Cabrera, A. & J. Crisci 19143 (*L. purpurea*), 19176 (*L. glacialis*), 19219 (*L. eriocephala*)
 Cabrera, A. & M. Job 72 (*L. achillaeifolia*), 148 (*L. glacialis*), 163 (*L. achillaeifolia*), 164 (*L. coerulescens*), 319 (*L. glacialis*), 339 (*Leucheria papillosa*, type), 358 (*L. achillaeifolia*)
 Cabrera, A. et al. 22877 (*L. lithospermifolia*), 22922 (*L. eriocephala*), 22953 (*L. glacialis*), 23021 (*L. purpurea*), 23048, 23061 (*L. glacialis*), 23137 (*L. purpurea*), 23204 (*L. glacialis*), 23230 (*L. achillaeifolia*), 25961 (*L. glacialis*), 27027 (*L. salinae*)
 Correa, M. & E. Nicora 3359, 3437, 3463 (*L. achillaeifolia*), 3496 (*L. purpurea*), 3617 (*L. achillaeifolia*), 3654 (*L. candidissima*)
 Correa, M. & R. Pérez Moreau 1916, 1922 (*L. suaveolens*), 2005 (*L. purpurea*), 2020, 2047 (*L. suaveolens*)
 Correa, M. et al. 2553, 2610 (*L. achillaeifolia*), 2656, 2744, 2766, 2816 (*L. purpurea*), 3090, 3844, 3906, 3991, 4037 (*L. achillaeifolia*), 4073 (*L. candidissima*), 4107, 4848, 4896 (*L. achillaeifolia*), 5547 (*L. glacialis*), 5876 (*L. purpurea*), 6236, 6252, 6253, 6285, 6339, 6358 (*L. achillaeifolia*), 6416 (*L. candidissima*), 6512, 6616 (*L. purpurea*), 6712, 7818, 9424 (*L. achillaeifolia*)
 Corte, A. 124 (*L. coerulescens*), 139 (*L. achillaeifolia*), 142 (*L. coerulescens*), 227 (*L. glacialis*)
 Cortés Maldonado, J. 36 (*L. runcinata*)
 Covas, G. 425 (*L. salinae*), 428 (*L. achillaeifolia*)
 Crespo, S. & R. Giangualani 2091 (*L. glacialis*), 2105 (*L. eriocephala*)
 Crespo, S. & N. Troncoso 1650 (*L. candidissima*)
 Crisci, J. 413 (*L. rosea*), 460 (*L. runcinata*), 480 (*L. bridgesii*), 497 (*L. runcinata*), 503 (*L. bridgesii*), 517 (*L. coerulescens*), 518 (*L. glacialis*), 519 (*L. purpurea*), 529 (*L. glacialis*), 530 (*L. purpurea*), 533, 534 (*L. glacialis*), 535, 536 (*L. coerulescens*), 537 (*L. glacialis*)
 Cumming, H. 906 (*Leucheria cumingii*, type)
 Darwin, C. 391 (*Leucheria achillaeifolia*, type)
 Dawson, G. & A. Ruiz Leal 59 (*L. runcinata*)
 Dawson, G. & H. Schwabe 2586, 2684 (*L. glacialis*)
 Dean, Y. 25 (*L. eriocephala*)
 de Jones, D. 53 (*L. achillaeifolia*), 86 (*L. purpurea*), 95 (*L. nutans*), 109 (*L. diemii* var. *diemii*)
 de Kreibohm, E. 244 (*L. achillaeifolia*)
 de la Sota, E. 2195 (*L. eriocephala*), 2814 (*L. coerulescens*)

- Deltor 2112 (*L. glacialis*)
 Diem, J. 24 (*L. glacialis*), 26 (*L. nutans*), 30 (*L. eriocephala*), 1969 (*L. achillaeifolia*), 2439 (*L. suaveolens*), 3106, 3217 (*L. purpurea*), 3219 (*L. diemii* var. *diemii*), 3311 (*Leucheria diemii*, type), 3602 (*L. diemii* var. *diemii*)
 Dillon, M. & Villarroel 8127 (*L. tomentosa*)
 Dillon, M. et al. 8081 (*L. tomentosa*)
 Dinelli 495 (*L. salinae*)
 Dollenz 166 (*L. suaveolens*), 240, 1355 (*L. purpurea*)
 Domínguez 25, 103, 260, 354, 390, 420, 451, 469 (*L. purpurea*), 470 (*L. achillaeifolia*)
 Domínguez, E. 48 (*Leucheria lanigera*, type), 500, 514 (*L. suaveolens*)
 Domínguez & Elvebakk 12 (*L. purpurea*)
 Donat, A. 44 (*L. glacialis*), 411 (*L. suaveolens*)
 d'Urville, D. 66 (*Perdicium suaveolens*, type)
 Dusén, P. 5748 (*Leucheria hoffmannii*, type)
- Ellenberg, M. 949 (*L. eriocephala*)
 Eskuche, U. 02-8 (*L. achillaeifolia*), 02-9 (*L. nutans*), 1050 (*L. eriocephala*), 601-15, 606-11 (*L. purpurea*)
 Eskuche, U. et al. 1927-13 (*L. purpurea*)
- Fabris, H. 914 (*L. achillaeifolia*), 1097 (*L. coerulescens*), 1254 (*L. runcinata*), 2157 (*L. eriocephala*)
 Fabris, H. & J. Crisci 6886, 6892, 6997 (*L. salinae*)
 Fabris, H. & J. Marchionni 2339, 2353 (*L. runcinata*)
 Fabris, H. & F. Zuloaga 8397 (*L. salinae*), 8452 (*L. runcinata*), 8508 (*L. gayana*), 8533 (*L. candidissima*)
 Faúndez, L. & B. Larrain 1072 (*L. rosea*), 1106 (*L. gayana*), 1146 (*L. floribunda*), 1281 (*L. gayana*), 1296 (*L. rosea*)
 Ferreyra, R. 2599 (*L. daucifolia*)
 Ferruglio, E. 54 (*L. purpurea*), 65 (*L. achillaeifolia*), 97 (*L. suaveolens*)
 Finot & López 1381 (*L. amoena*), 1668 (*L. gilliesii*)
 Fortunato, R. et al. 5729 (*L. achillaeifolia*)
 Frenguelli, J. 509 (*L. lithospermifolia*)
- Garaventa, A. 518 (*L. runcinata*), 651, 1435, 1878 (*L. rosea*), 1885 (*L. tomentosa*), 3253, 5428 (*L. runcinata*)
 García 4347 (*L. coerulescens*)
 García, N. 71, 72 (*L. eriocephala*), 3005 (*L. tomentosa*), 4352 (*L. lithospermifolia*)
 García, N. & L. Faúndez 3637 (*L. runcinata*), 3685 (*L. rosea*)
 García, N. & Valdivia 3129 (*L. tomentosa*)
 García, N. et al. 3334 (*L. tomentosa*), 3469, 3471, 3576 (*L. hieracioides*)
 Gardner et al. 96 (*L. lithospermifolia*)
 Garrido, J. & Martínez 466, 716, 736 (*L. candidissima*)
 Gay, C. 174 (*Leucheria menana*, type), 175, 264 (*Leucheria cerberoana*, type), 176, 177 (*Leucheria menana*, type), 314 (*Leucheria garciana*, type), 319 (*Leucheria floribunda*, type), 345 (*Leucheria eriochlaena*, type), 357 (*Leucheria coerulescens*, type), 386 (*Leucheria nutans*, type), 390 (*Chabreaa* barrasiana, type), 449, 452 (*Chabreaa salina*, type), 885 (*Chabreaa poeppigii*, type), 916 (*Leucheria menana*, type)
 Geise, W. 97 (*Leucheria glabrata*, type)
 Gentili, M. 5, 6, 7 (*L. achillaeifolia*), 156 (*L. nutans*), 209 (*L. candidissima*), 235 (*L. achillaeifolia*), 414 (*L. purpurea*), 417 (*L. suaveolens*), 429 (*L. purpurea*), 685 (*L. achillaeifolia*)
 Gentili, M. & P. Gentili 995 (*L. achillaeifolia*)
 Gillies, J. 43 (*Leucheria scrobiculata*, type), 119 (*Leucheria congesta*, type), 120 (*Leucheria runcinata*, type), 124 (*Leucheria gilliesii*, type)
 Gleisner 6 (*L. tomentosa*), 152 (*L. coerulescens*)
 Gómez et al. 5857 (*L. runcinata*), 7652 (*L. achillaeifolia*)
 González, E. 208 (*L. achillaeifolia*)
 Goodall, N. 147 (*L. purpurea*), 170, 603, 769, 4021 (*L. suaveolens*), 4091, 4146, 4407 (*L. purpurea*)
 Grau, J. 2839 (*Leucheria graui*, type)
 Grondona, E. 2082 (*L. purpurea*), 2318, 2366 (*L. achillaeifolia*), 4214 1/2, 4338, 7476 (*L. suaveolens*)
 Grüner, G. 135 (*L. achillaeifolia*), 136 (*L. coerulescens*)
 Guerrero, A. 20 (*L. achillaeifolia*)
 Guerrido, C. et al. 79 (*L. achillaeifolia*)
 Gunkel, H. 2052 (*L. tomentosa*), 20683 (*L. salinae*), 25008, 26347 (*L. tomentosa*), 27708 (*L. rosea*), 32023, 36430, 42239 (*L. tomentosa*)
- Haene 1993 (*L. salinae*)
 Hahn, H. 86, 89 (*Leucheria hahnii*, type)
 Hatcher, J. 167 (*L. suaveolens*)
 Hauthal, R. 49, 55, 92 (*L. suaveolens*)
 Henslow 355 (*Lasiorrhiza viscosa*, type)
 Hildebrand-Vogel 71 (*L. eriocephala*)
 Hjerting, J. & K. Rhan 3111 (*L. achillaeifolia*)
 Hochstetter, A. 2261a (*L. suaveolens*)
 Hollermayer, A. 447 (*L. coerulescens*), 447b (*L. glacialis*), 732 (*L. coerulescens*), 733 (*L. lithospermifolia*), 742, 748 (*L. glacialis*)
 Humaña, A. et al. 20-088 (*L. lithospermifolia*), 20089 (*L. hieracioides*), 20163 (*L. glacialis*)
 Hünicken, M. 21 (*L. purpurea*), 22, 25 (*L. suaveolens*)
 Hunziker, A. 8279 (*L. purpurea*)
 Hunziker, J. 2207 (*L. salinae*), 6724 (*L. suaveolens*), 6750 (*L. purpurea*), 6900 (*L. glacialis*), 7051 (*L. eriocephala*)
- Ibar, E. 2234 (*L. achillaeifolia*)
 Iglesias, A. & M. Soetbeer 32 (*L. glacialis*)
 Illin, N. 96 (*L. achillaeifolia*)
 Irisari, M. & A. Beeskow 312 (*L. achillaeifolia*)
 Irisari, M. & M. Bertiller 310 (*L. achillaeifolia*)
- Jackson, I. 311 (*L. achillaeifolia*)
 Jaffuel, P. 852 (*L. tomentosa*), 2056, 2806 (*L. glacialis*), 2809 (*L. purpurea*), 3121 (*L. tomentosa*)
 James 4012 (*L. eriocephala*)
 Jereb, M. 17 (*L. candidissima*)

- Jiles P., C. 4124 (*L. bridgesii*), 4221 (*L. runcinata*), 1397, 1814, 2292, 2328, 2811 (*L. tomentosa*), 2546, 2564, 3638 (*L. salinae*), 3838, 3873, 4482 (*L. tomentosa*), 4552 (*L. runcinata*), 5191, 5403, 6408 (*L. tomentosa*)
- Jiménez, A. 189 (*L. achillaeifolia*)
- Job, M. 2440 (*L. eriocephala*)
- Joseph 4403 (*L. tomentosa*)
- Junge, C. 1008, 2081, 6699 (*L. tomentosa*)
- Kalin, M. & A. Humaña 99-1190 (*L. bridgesii*), 99-3626, 99-5319, 99-5235 (*L. tomentosa*)
- Kalin, M. et al. 20-1409 (*L. bridgesii*), 43, 54 (*L. purpurea*), 63, 110, 132, 133, 179 (*L. suaveolens*)
- Kalin Arroyo, M. 81-269 (*L. bridgesii*)
- Kausel, G. 3708, 3739 (*L. tomentosa*), 3843, 3858 (*L. rosea*), 4626 (*L. hieracioides*), 5177, 5210, 5227, 5233 (*L. tomentosa*)
- Kiesling, R. 1328, 1422 (*L. runcinata*), 1433 (*L. salinae*), 1475 (*L. runcinata*), 3168, 6915, 7462 (*L. salinae*), 7596 (*L. runcinata*), 7999 (*L. salinae*), 8050, 10073 (*L. runcinata*)
- Killip, E. & V. Pisano 39788 (*L. tomentosa*)
- King, D. 49 (*L. scrobiculata*), 359 (*L. scrobiculata*), 360 (*L. runcinata*), 386 (*L. scrobiculata*), 391, 417 (*L. runcinata*), 432 (*L. floribunda*)
- Kohler, P. 164, 437, 596 (*L. tomentosa*)
- Kohler, P. & Weisser 77 (*L. tomentosa*)
- Koslowsky, J. 259 (*L. glacialis*)
- Krapovickas, A. 3737 (*L. coerulescens*), 3781, 3904, 3915 (*L. achillaeifolia*), 4072 (*L. glacialis*), 4074, 4140 (*L. purpurea*), 4223 (*L. glacialis*)
- Krapovickas, A. & W. Barrett 4676 (*L. salinae*)
- Krapovickas, A. & J. Hunziker 5608 (*L. salinae*), 5707 (*L. nutans*), 5792 (*L. polyclados*)
- Kurtz, F. 7118 (*L. gilliesii*)
- Lagiglia, H. 668 (*L. gilliesii*), 2215 (*L. candidissima*)
- Lahitte, R. 415, 442 (*L. glacialis*), 446 (*L. coerulescens*), 455, 469 (*L. achillaeifolia*)
- Landero, A. 640 (*L. suaveolens*), 687 (*L. purpurea*), 688 (*L. suaveolens*), 704A (*L. purpurea*), 710, 734 (*L. suaveolens*), 762 (*L. purpurea*), 769 (*L. suaveolens*)
- Lavandero, N. 700 (*Leucheria cantillanensis*, type)
- Layaga, M. 3259 (*L. glacialis*)
- Lazo & Stone 133 (*L. tomentosa*)
- Lechler, W. 1047, 1047a (*Chabraea suaveolens*, type)
- León, R. 3922 (*L. suaveolens*)
- Leuenberger, B. 3439 (*L. purpurea*)
- Levi 3213 (*L. tomentosa*)
- Looser, G. 345 (*L. floribunda*), 1128 (*L. runcinata*), 3683 (*L. bridgesii*), 3686 (*L. runcinata*), 3775, 3777 (*L. tomentosa*), 3991 (*Leucheria cinerea*, type), 67007 (*L. salinae*)
- Lorentz, P. G. & G. H. E. W. Hieronymus 101 (*Senecio pteropogon*, type)
- Lourteig, A. 777 (*L. runcinata*)
- Luebert, F. & S. Teillier 2209 (*L. lithospermifolia*), 2279, 2302 (*L. candidissima*), 5533 (*L. glacialis*)
- Luti, R. et al. 5541, 5555 (*L. runcinata*)
- Magens, O. 77, 908 (*L. suaveolens*)
- Mahu, M. 406, 997 (*L. tomentosa*), 1035 (*L. coerulescens*), 1039 (*L. tomentosa*), 1966 (*L. rosea*), 2315 (*L. tomentosa*), 5576 (*L. bridgesii*), 5629 (*L. apiifolia*), 5809 (*L. coerulescens*), 7665 (*L. tomentosa*), 7880 (*L. nutans*)
- Maldonado B., R. 59 (*L. coerulescens*), 63 (*L. lithospermifolia*), 65, 149 (*L. glacialis*)
- Márquez 37 (*L. bridgesii*)
- Martcorena, C. 815 (*L. rosea*), 9504 (*L. tomentosa*)
- Martcorena, C. & O. Matthei 71 (*L. tomentosa*), 533 (*L. bridgesii*), 557 (*L. salinae*), 576 (*L. runcinata*), 644, 656 (*L. bridgesii*), 724 (*L. gayana*), 815 (*L. lithospermifolia*), 863 (*L. apiifolia*), 887 (*L. gilliesii*), 892 (*L. apiifolia*), 1006 (*L. candidissima*), 1061 (*L. gilliesii*), 1086 (*L. viscida*), 2161 (*L. tomentosa*)
- Martcorena, C. & E. Weldt 544 (*L. bridgesii*), 568 (*L. rosea*), 607 (*L. tomentosa*), 615 (*Leucheria divaricata*, type), 644 (*L. tomentosa*)
- Martcorena, C. et al. 5 (*L. gilliesii*), 83-401, 83-422 (*L. nutans*), 83-460 (*L. salinae*), 88 (*L. candidissima*), 152, 1351, 1365, 1423, 1437, 1456, 1689, 1818 (*L. tomentosa*)
- Martínez Crovetto, R. 3030 (*L. glacialis*)
- Matthei, O. 665 (*L. glacialis*)
- Matthei, O. & Bustos 110 (*L. glacialis*)
- Mazzucconi 1358 (*L. coerulescens*)
- Medrano, E. & J. Garrido 7774 (*L. achillaeifolia*)
- Melis, L. & F. Barkley 20Mz098 (*L. runcinata*)
- Méndez, E. 1064 (*L. suaveolens*), 1066, 1067 (*L. purpurea*)
- Millaqueo, C. 33 (*L. coerulescens*), 34 (*L. achillaeifolia*)
- Montero O., G. 1040 (*L. bridgesii*), 1771, 1844, 1951 (*L. tomentosa*), 1954 (*L. coerulescens*), 2069, 2712 (*L. glacialis*), 4827 (*L. coerulescens*), 5402 (*L. viscida*), 5458 (*L. glacialis*), 5516 (*L. lithospermifolia*), 5932 (*L. gilliesii*), 6391 (*L. viscida*), 6457 (*L. glacialis*), 6581 (*L. tomentosa*), 6655 (*L. rosea*), 6960, 7183, 7204 (*L. tomentosa*), 8261 (*L. coerulescens*), 8799, 9420 (*L. tomentosa*), 12161 (*L. viscida*), 12500 (*L. rosea*)
- Moore, D. 519, 1385, 1439, 1554, 1739, 1743, 1771, 1971, 2586, 2794 (*L. suaveolens*)
- Moore, D. & N. Goodall 120, 182, 188, 200 (*L. suaveolens*), 283 (*L. purpurea*)
- Morales, M. & B. Goodson 28 (*L. purpurea*)
- Moreira, A. 1786 (*L. runcinata*)
- Moreira, A. & M. Muñoz 1818 (*L. floribunda*)
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- Muñoz, A. 20 (*L. viscida*)
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- Navas 340, 1386 (*L. viscida*)
- Navas, E. 2144 (*L. salinae*)

- Navas, J. 4 (*L. achillaeifolia*)
- Neumeyer, J. 11 (*L. achillaeifolia*), 14 (*L. purpurea*), 407 (*L. achillaeifolia*), 472 (*L. eriocephala*), 479 (*L. nutans*), 490 (*L. glacialis*)
- Niemeyer, H. 89-D (*L. viscida*)
- Niemeyer, H. & Fernández 8903 (*L. rosea*), 8931 (*L. purpurea*), 8934 (*L. glacialis*), 8941 (*L. lithospermifolia*)
- Niemeyer, H. et al. 89-138 (*L. tomentosa*)
- Nordenskjöld, O. A75 (*Leuceria lanigera*, type)
- Paci, O. 170 (*L. runcinata*)
- Palacios, M. & F. Barkley 20Mz321 (*L. bridgesii*)
- Panero, J. & B. Crozier 8411, 8415 (*L. glacialis*), 8449 (*L. runcinata*), 8450 (*L. bridgesii*)
- Parodi, L. 11851 (*L. achillaeifolia*)
- Pérez Moreau, R. 162, 203 (*L. salinae*)
- Pérez Moreau, R. & B. Piccinini 3177, 3238 (*L. achillaeifolia*)
- Pérez Moreau, R. & V. M. 3516 (*L. achillaeifolia*)
- Petersen 19 (*L. suaveolens*)
- Pfanzelt, S. 41 (*L. lithospermifolia*), 48 (*L. nutans*)
- Pfanzelt, S. & A. Arriagada 597 (*L. eriocephala*)
- Pfister, A. 2193 (*L. tomentosa*), 5000 (*L. coerulescens*), 8293 (*L. tomentosa*)
- Philippi, F. 2245 (*Leuceria fuegina*, type), 2246 (*Leuceria nivea*, type)
- Philippi, O. 1119 (*Leuceria longifolia*, type)
- Philippi, R. 1123 (*Leuceria glandulosa*, type), 1126 (*Leucheria multiflora*, type), 1134 (*Chabraea salinasi*, type), 1137 (*Chabraea pulchella*, type), 1139 (*Chabraea oligocephala*, type), 2336 (*Leuceria sonchoides*, type)
- Pirion, P. 1431 (*L. tomentosa*)
- Pisano, V. 2373 (*L. purpurea*), 2791 (*L. suaveolens*), 2836, 2857, 3583 (*L. purpurea*), 3614 (*L. achillaeifolia*)
- Pisano, V. & Bravo 1, 187, 252, 532, 605 (*L. tomentosa*)
- Pisano, V. & R. Cárdenas K. 4742, 4860 (*L. purpurea*)
- Pisano, V. et al. 1627 (*L. bridgesii*), 1629 (*L. runcinata*), 7485 (*L. suaveolens*)
- Poeppig, E. 162 (*Lasiorrhiza tomentosa*, type), 574 (*Leucheria rosea*, type), 740 (*Leuchaeria paniculata*, type), 849 (*Lasiorrhiza lithospermifolia*, type), 878 (*Lasiorrhiza rosea*, type), 911 (*Leucheria glacialis*, type)
- Prina, A. et al. 2398 (*L. lithospermifolia*)
- Pujalte, J. 53, 305 (*L. salinae*)
- Quezada & C. Baeza 4 (*L. tomentosa*)
- Quezada & López 1 (*L. tomentosa*)
- Quezada & Ruiz 198, 237, 379 (*L. tomentosa*)
- Ragonese, A. 149 (*L. lithospermifolia*), 184 (*L. glacialis*)
- Rasp, A. 10, 119 (*L. achillaeifolia*)
- Rasp, J. 120 (*L. achillaeifolia*)
- Ratto, F. 103 (*L. lithospermifolia*)
- Ratto, F. et al. 107 (*L. diemii* var. *diemii*), 228 (*L. suaveolens*), 352 (*L. diemii* var. *purpurea*, type)
- Reynolds 103 (*Leuchaeria volcanica*, type)
- Ricardi, M. 1207 (*L. salinae*), 2001, 2053, 2234, 2280 (*L. tomentosa*), 2427 (*L. rosea*), 2544, 2691 (*L. tomentosa*), 2877 (*L. bridgesii*), 2966 (*L. floribunda*), 3108, 5207 (*L. tomentosa*), 5601 (*L. glacialis*)
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- Ricardi, M. et al. 492 (*L. salinae*), 830 (*L. bridgesii*), 961 (*L. glacialis*)
- Rodrigo 3122 (*L. runcinata*)
- Rodríguez, R. et al. 5466, 5611 (*L. lithospermifolia*)
- Roig, F. 4 (*L. scrobiculata*), 7 (*L. salinae*), 4630 (*L. runcinata*)
- Romero, E. 17, 29 (*L. purpurea*)
- Romero & Aldunate 49 (*L. tomentosa*)
- Rossou, R. 884 (*L. glacialis*), 1077 (*L. candidissima*)
- Rossou, R. et al. 1073 (*L. purpurea*), 1202 (*L. glacialis*)
- Ru 12147 (*L. nutans*)
- Ruiz, F. 15 (*L. viscida*)
- Ruiz & Lopez 1089 (*L. lithospermifolia*)
- Ruiz Leal, A. 1163 (*L. salinae*), 1196, 1861 (*L. runcinata*), 1906 (*L. scrobiculata*), 1914, 1919 (*L. salinae*), 1970 (*L. scrobiculata*), 2063 (*L. gayana*), 3078 (*L. runcinata*), 3206 (*L. salinae*), 4295, 4913 (*L. runcinata*), 6569 (*L. salinae*), 7154 (*L. runcinata*), 7166 (*L. candidissima*), 7171 (*L. salinae*), 7185 (*L. scrobiculata*), 7924 (*L. salinae*), 9696, 9752 (*L. achillaeifolia*), 10076 (*L. scrobiculata*), 10548 (*L. runcinata*), 11734 (*L. candidissima*), 11743 (*L. scrobiculata*), 11946 (*L. salinae*), 11957 (*L. scrobiculata*), 13014, 13015, 13979 (*L. runcinata*), 14648 (*L. salinae*), 22074 (*L. runcinata*), 22423 (*L. glacialis*), 23536 (*L. candidissima*), 23561 (*L. scrobiculata*), 23582 (*L. salinae*), 23883 (*L. achillaeifolia*), 24679 (*L. gayana*), 25538, 25755 (*L. achillaeifolia*), 25809 (*L. purpurea*), 26429, 26458 (*L. suaveolens*), 26536 (*L. achillaeifolia*), 26614 (*L. coerulescens*), 26635, 26868 (*L. achillaeifolia*), 27024 (*L. purpurea*), 27312 (*L. gilliesii*), 27394 (*L. gayana*), 28586 (*L. achillaeifolia*), 28587 (*L. purpurea*)
- Ruiz Leal, A. & Carretero 12788, 12817 (*L. suaveolens*)
- Ruiz Leal, A. & G. Dawson 74 (*L. salinae*)
- Ruiz Leal, A. & F. Roig 15059 (*L. suaveolens*), 15562, 15615 (*L. floribunda*), 15757 (*L. bridgesii*)
- Ruthsatz 6790, 6804 (*L. bridgesii*), 6995 (*L. salinae*), 7397, 7412 (*L. eriocephala*)
- Saavedra & Pauchard 270 (*L. gayana*), 271 (*Leuceria meyeniana*, type)
- Sancho, G. & M. Bonifacino 384 (*L. coerulescens*)
- Schajovskoy, S. 41 (*L. achillaeifolia*), 49 (*L. purpurea*), 52 (*L. achillaeifolia*)

- Schiano, E. 14 (*L. achillaeifolia*)
- Schlegel 1087 (*L. salinae*), 3544 (*Leuceria laciniata*, type), 6952, 6988, 7139, 8076 (*L. glacialis*)
- Scolnik, R. 244 (*L. eriocephala*)
- Semper, J. 4265, 10076 (*L. salinae*)
- Serra, L. 31, 62 (*L. scrobiculata*)
- Skottsberg, C. 571 (*Leucheria millefolium* f. *minor*, type), 572 (*Leucheria millefolium*, type), 841 (*Leuceria candidissima*, type), 1022, 1051 (*L. tomentosa*)
- Skottsberg, C. & Sparre 11077 (*L. bridgesii*), 11080 (*L. hieracioides*)
- Sleumer, H. 681 (*L. scrobiculata*), 827, 986, 1069, 1085, 1514 (*L. purpurea*), 1163, 1374, 1411 (*L. suaveolens*)
- Sleumer, H. & F. Vervoorst 2633 (*L. salinae*)
- Soriano, A. 202 (*L. eriocephala*), 190 (*L. coerulescens*), 1971 (*L. achillaeifolia*), 2048 (*L. suaveolens*), 2085 (*L. candidissima*), 2181 (*Leucheria millefolium*, type), 2402, 2404 (*L. achillaeifolia*), 2475 (*L. glacialis*), 2590, 3124 (*L. purpurea*), 3783, 3851 (*L. achillaeifolia*), 4215 (*L. eriocephala*), 5615 (*L. purpurea*)
- Sosa 27312 (*L. gilliesii*)
- Sparre 10603 (*L. bridgesii*)
- Sparre & Constance 10911 (*L. glacialis*)
- Sparre & Smith 154 (*L. viscida*), 464 (*L. lithospermifolia*)
- Spegazzini, R. 8 (*L. achillaeifolia*), 23, 25 (*L. coerulescens*), 33 (*L. lithospermifolia*), 61, 63 (*L. coerulescens*), 108 (*L. achillaeifolia*), 115 (*L. purpurea*), 116 (*L. suaveolens*), 127 (*L. glacialis*), 140 (*L. purpurea*), 141 (*L. suaveolens*), 235 (*L. eriocephala*), 380 (*L. purpurea*), 389 (*L. achillaeifolia*), 432 (*L. runcinata*), 464 (*L. purpurea*), 480 (*L. achillaeifolia*), 613, 652 (*L. runcinata*)
- Stuessy, T. & Ruiz 12714, 12716 (*L. coerulescens*)
- Stuessy, T. et al. 6829, 6912 (*L. achillaeifolia*), 10060 (*L. purpurea*), 10282 (*L. lithospermifolia*), 10391 (*L. runcinata*)
- Taylor et al. 10722 (*L. tomentosa*)
- Teillier, S. 552, 558 (*L. tomentosa*), 4548 (*L. candidissima*), 4580 (*L. rosea*), 4607 (*L. floribunda*), 5119, 5120 (*L. runcinata*), 5161 (*L. floribunda*), 5873, 5891, 5929 (*L. tomentosa*), 6495 (*L. runcinata*), 7960 (*L. bridgesii*)
- Teillier, S. & Barahona 6283 (*L. nutans*)
- Teillier, S. & J. Delaunoy 5577 (*L. nutans*)
- Teillier, S. & González 2407 (*L. bridgesii*)
- Teillier, S. & Márquez 4499 (*L. salinae*), 4858, 4907 (*L. tomentosa*), 5231 (*L. gayana*), 5232 (*L. rosea*), 5304, 5305 (*L. gayana*), 5307 (*L. bridgesii*), 5307B (*L. rosea*)
- Teillier, S. & H. Niemeyer 3320 (*L. runcinata*)
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- Teneb, E. 248 (*L. achillaeifolia*), 555 (*L. glacialis*), 670, 692, 696 (*L. eriocephala*)
- Tome, G. 158, 159 (*L. tomentosa*), 160, 161, 162 (*L. rosea*), 163 (*L. tomentosa*)
- Tovar, O. 1147 (*L. daucifolia*)
- Tsuji 6, 21 (*L. suaveolens*), 400 (*L. suaveolens*)
- Tweedie, R. 36 (*L. purpurea*), 200 (*L. suaveolens*), 258 (*L. suaveolens*)
- Umana, A. 158 (*L. purpurea*)
- Vallerini 139 (*L. eriocephala*)
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- von Bohlen, C. & L. Cavieres 325 (*L. purpurea*), 357 (*L. suaveolens*)
- von Rentzell, I. 6076 (*L. suaveolens*)
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- Weldt, E. 163 (*L. tomentosa*), 695 (*L. bridgesii*)
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- Wierner, D. 148 (*L. salinae*)
- Zöllner, O. 529 (*L. suaveolens*), 971, 1066 (*L. scrobiculata*), 1133 (*L. tomentosa*), 1390, 1391 (*L. runcinata*), 1392 (*L. scrobiculata*), 1393 (*Leucheria salina*, type), 1429 (*L. scrobiculata*), 1430 (*L. salinae*), 1915 (*L. tomentosa*), 2459 (*L. lithospermifolia*), 2461 (*L. integrifolia*), 3106 (*L. runcinata*), 3253, 3682 (*L. tomentosa*), 3784 (*L. floribunda*), 4329 (*Leucheria glandulosa*, type), 4330, 4451 (*L. tomentosa*), 4452 (*L. bridgesii*), 4453 (*L. tomentosa*), 4572 (*L. floribunda*), 4573 (*L. amoena*), 4757, 4832 (*L. rosea*), 4833 (*L. bridgesii*), 4964 (*L. runcinata*), 4965 (*L. candidissima*), 5327 (*L. scrobiculata*), 5408 (*L. runcinata*), 5497 (*L. salinae*), 5526 (*L. lithospermifolia*), 5549 (*L. integrifolia*), 5801 (*L. suaveolens*), 5977 (*L. lithospermifolia*), 6289 (*L. gayana*), 6343 (*L. runcinata*), 6455 (*L. glacialis*), 6637 (*L. coerulescens*), 7377 (*L. suaveolens*), 7627 (*L. coerulescens*), 7661, 9044 (*L. runcinata*), 9940, 12440 (*L. tomentosa*), 13965 (*L. viscida*), 17469, 17500 (*L. integrifolia*), 20522 (*L. coerulescens*)

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